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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1982

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS
HOUSE OF REPRESENTATIVES

NINETY-SEVENTH CONGRESS

FIRST SESSION

SUBCOMMITTEE ON THE DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES

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PART 10

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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1982

THURSDAY, MARCH 5, 1981.

U.S. FISH AND WILDLIFE SERVICE

WITNESSES

F. EUGENE HESTER, ACTING DEPUTY DIRECTOR
RICHARD MYSHAK, ASSOCIATE DIRECTOR FOR WILDLIFE RESOURCES
MICHAEL J. SPEAR, ASSOCIATE DIRECTOR FOR ENVIRONMENT
GALEN L. BUTERBAUGH, ASSOCIATE DIRECTOR, FISHERY RESOURCES
HAROLD J. O'CONNOR, ACTING ASSOCIATE DIRECTOR FOR FEDERAL ASSISTANCE
ADAM A. SOKOLOSKI, ASSISTANT DIRECTOR FOR PLANNING AND BUDGET
JOSEPH GORRELL, DEPUTY DIRECTOR, BUDGET OFFICE, THE OFFICE OF THE SECRETARY

OPENING REMARKS

Mr. YATES. Show the meeting as coming to order, Mr. Reporter.

This is the hearing on the appropriation for the Fish and Wildlife Service for fiscal year 1982.

Appearing before us on behalf of the Department is Mr. F. Eugene Hester, Acting Deputy Director.

He is accompanied by Mr. Myshak, the Associate Director for Wildlife Resources; Mr. Spear, Associate Director for Environment; Mr. Buterbaugh, Associate Director, Fishery Resources; Mr. O'Connor, Acting Associate Director for Federal Assistance; Mr. Sokoloski, Assistant Director for Planning and Budget; and Mr. Gorrell, Deputy Director, Budget Office, the Office of the Secretary.

Mr. Hester, your statement may be made part of the record.

[The statement follows:]

STATEMENT OF F. EUGENE HESTER, ACTING DEPUTY DIRECTOR, FISH AND WILDLIFE SERVICE, U.S. DEPARTMENT OF THE INTERIOR

Mr. Chairman, it is my privilege, shared by my associates, to appear before this Subcommittee to discuss the budget request presently before you for the Fish and Wildlife Service.

The mission of the Service is to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of people. The Service is concerned with the welfare of all fish and wildlife and the preservation of their habitats, with principal responsibility and authority for migratory birds, threatened and endangered species, international resources, and wildlife on lands under Service control.

The Service is composed today of a headquarters office in Washington, D.C.; seven regional offices, including Alaska which has recently been upgraded to a regional office; and a wide variety of approximately 750 field units and installations. These include over four hundred national wildlife refuges, over ninety national fish hatcheries and development centers, seventeen fish and wildlife research laboratories, cooperative research units at thirty-one universities across the country; and a nationwide network of wildlife law enforcement agents.

I heartily support the President's national economic objective of reducing inflation due in part to continued Federal budget deficits. The Fish and Wildlife Service will do its part. I understand that the details of proposed revisions will be made available on March 10 or shortly thereafter.

The key to realizing those opportunities that do exist is the rational and precise allocation of the available funding together with alert and demanding management. It is for this reason that our budget proposes funds to be devoted to two primary purposes: operation and maintenance of Service national wildlife refuge facilities and fishery facilities to improve management and efficiency, and implementation of the recently enacted Alaska National Interest Lands Conservation Act.

RESOURCE MANAGEMENT

Our request for the Resource Management appropriation will focus on operation and maintenance funds which will be spent principally at national wildlife refuge field stations and national fish hatcheries. Other funds will be used to operate and maintain fishery research laboratories and fishery assistance field stations.

Rising costs of materials, supplies and labor over the past several years have necessitated deferral of normal cyclical maintenance of facilities such as water control structures, dikes, raceways, ponds, irrigation and pumping systems, as well as support facilities such as buildings, roads, fences and equipment. Operational costs such as fish food, electrical power, and other utilities have also been impacted by cost escalation. The impacts have been more severe at existing, older facilities.

Increased operation and maintenance funding will improve effectiveness, promote safety and provide basis operational needs such as fish food, utilities, equipment, supplies and materials. These increases also respond to Congressional concerns expressed about the operation and maintenance funding of Service facilities.

The Alaska National Lands Conservation Act was signed December 2, 1980. The Service request will include amounts to implement certain provisions of this Act. The Act established nine new and enlarged seven existing national wildlife refuges in Alaska; directed specific studies of fish and wildlife resources in several regions of Alaska; and established subsistence use of renewable resources as the priority consumptive use on public lands.

The focus of management of the new refuge units is the maintenance of all natural and cultural values with particular emphasis on fish and wildlife and their habitats. Several factors and difficulties are unique to Alaska and become important in determining management objectives and strategies:

Native cultures and the frontier lifestyles of other rural Alaskans are based on subsistence use of fish and wildlife.

The remoteness of most refuges and their immense size.

The provision of multiple public uses such as hunting, fishing, commercial fishing, timber and other economic uses.

The great diversity and, in many instances, fragility of these pristine ecosystems.

Comprehensive planning, a basic prerequisite to intelligent and purposeful fish and wildlife stewardship, requires knowlege of the nature and extent of the existing resources of an area and their use. Surveys, censuses, and management studies will be conducted on refuges to determine numbers, species, and habitat needs of fish and wildlife resources. The basic ecology of these lands will also be studied. When completed, the plans will define actions required to maintain the viability of ecosystems, including the levels of compatible uses for various purposes. The enormity and limited time for the refuge comprehensive planning task required under Section 304(g) of the Act creates major data management problems for the Service.

CONSTRUCTION AND ANADROMOUS FISH

The budget request for this appropriation will be used to continue development and rehabilitation of facilities of the National Wildlife Refuge System including roads, buildings, water control structures, and public use facilities.

OTHER APPROPRIATIONS

The Service will preserve 21,400 acres of wetlands in 1982 from receipts from the sale of the Migratory Bird Hunting and Conservation Stamp. No advance from the Wetlands Loan Fund has been requested and no direct appropriation is requested for payments in lieu of taxes.

This concludes my opening statement, Mr. Chairman, and I should be pleased to respond to any questions the Committee may have.

Mr. **Yates.** Do we have a biography of yours to place in the record, Mr. Hester? Have we had it before?

Mr. **Hester.** I have testified here before, Mr. Chairman.

Mr. **Yates.** Then we do not need another one.

We shall at this point in the record insert the Department's proposed supplemental request.

[The information follows:]

DEPARTMENT OF THE INTERIOR

U.S. FISH AND WILDLIFE SERVICE

RESOURCE MANAGEMENT

	Presently Available	Revised Estimate	Proposed Supplemental
Resource Management	$235,487,000	$241,487,000	$6,000,000

U.S. FISH AND WILDLIFE SERVICE

RESOURCE MANAGEMENT

For an additional amount for "Resource Management," $6,000,000, of which not to exceed $2,100,000 shall remain available until expended.

STANDARD FORM 300
July 1964, Bureau of the Budget
Circular No. A-11, Revised.
300-101

DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
RESOURCE MANAGEMENT

Program and financing (in thousands of dollars)

Identification code 14-1611-0-1-303	19 81 actual	19 81 estimate	19 81 estimate
Program by activities:	Preseently available	Revised estimate	Proposed supplemental
1. Habitat preservation	50,000	50,200	200
2. Wildlife resources	111,578	114,183	2,605
3. Fishery resources	41,511	44,706	3,195
4. All other activities	34,249	34,249	...
Total, direct program 1/	237,338	243,338	6,000
Reimbursable program:			
7. Miscellaneous services, other agencies:			
(a) Habitat preservation	15,815	15,815	...
(b) Wildlife resources	10,384	10,384	...
(c) Fishery resources	8,617	8,617	...
(d) Endangered species	1,029	1,029	...
Total, reimbursable program 2/	35,845	35,845	...
Total program costs, funded	273,183	279,183	6,000
10.00 Total obligations	273,183	279,183	6,000
Financing; Offsetting collections from:			
11.00 Federal funds	-29,644	-29,644	...
14.00 Non-Federal sources	-1,892	-1,892	...
21.40 Unobligated balance available start of year	-1,851	-1,851	...
22.40 Unobligated balance transferred from other accounts	-4,309	-4,309	...

1/ Includes capital investment as follows: 1980, $6,138; 1981, $6,766; and 1982, $7,527.

2/ Includes capital investment as follows: 1980, $340; 1981, $1,075; and 1982, $819

STANDARD FORM 300
July 1964, Bureau of the Budget
Circular No. A-11, Revised.
300-101

DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
RESOURCE MANAGEMENT
Program and financing (in thousands of dollars)

Identification code 14-1611-0-1-303	19 81 actual	19 81 estimate	19 81 estimate
Budget authority:			
39.00 Appropriation	235,487	241,487	6,000
Budget authority			
40.00 Appropriation	225,566	231,566	6,000
44.10 Supplemental for wageboard payraises	893	893	...
44.20 Supplemental for civilian payraises	9,028	9,028	...
Relation of obligations to outlays:			
71.00 Obligations incurred, net	241,647	247,647	6,000
72.00 Obligated balance,start of year	38,025	38,025	...
73.40 Obligated balance transferred net	2,274	2,274	...
74.00 Obligated balance, end of year.	-51,184	-56,009	-4,825
90.00 Outlays, excluding payraise supplemental	221,139	222,314	1,175
01.10 Outlays from wageboard payraises	866	866	...
91.20 Outlays from civilian payraise supplemental	8,757	8,757	...

STANDARD FORM 300
July 1964, Bureau of the Budget
Circular No. A-11, Revised.
300-101

DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
RESOURCE MANAGEMENT

Object Classification (in thousands of dollars)

Identification code 14-1611-0-1-303		19 81 actual	19 81 estimate	19 81 estimate
		Presently available	Revised Estimate	Proposed Supplemental
	Personnel compensation			
11.1	Permanent positions	99,799	100,343	544
11.3	Positions other than permanent.	31,443	31,687	244
11.5	Other personnel compensation...	5,469	5,469	...
11.9	Total personnel compensation ..	136,711	137,499	788
	Personnel benefits			
12.1	Civilian	15,060	15,363	303
21.0	Travel and transportation of persons	8,629	9,022	393
22.0	Transportation of things	1,850	2,335	485
23.1	Standard level user charges ...	9,793	9,793	...
23.2	Communications, utilities, and other rent	10,915	11,041	126
24.0	Printing and reproduction	2,082	2,216	134
25.0	Other services	17,414	18,427	1,013
26.0	Supplies and materials	16,524	16,740	216
31.0	Equipment	9,909	10,422	513
32.0	Lands and structures	2,500	2,500	...
41.0	Grants, subsidies and contributions	5,851	7,880	2,029
42.0	Insurance claims and indemnities	100	100	...
99.9	Total obligations	237,338	243,338	6,000

STANDARD FORM 300
July 1964, Bureau of the Budget
Circular No. A-11, Revised.
300-101

DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
RESOURCE MANAGEMENT
PERSONNEL SUMMARY

Identification code 14-1611-0-1-303	19 81 actual	19 81 estimate	19 81 estimate
	Presently available	Revised Estimate	Proposed Supplemental
Direct			
Total number of full-time permanent positions	4,330	4,415	85
Total compensable work years:			
Full-time equivalent employment	6,352	6,472	120
Full-time equivalent of overtime and holiday hours	64	64	...
Average GS grade	10.17	10.17	...
Average GS salary	$23,952	$23,952	...
Average salary of ungraded positions	$18,244	$18,244	...
Reimbursables			
Total number of full-time permanent positions	280	280	...
Total compensable work years:			
Full-time equivalent employment	618	618	...
Full-time equivalent of overtime and holiday hours	2	2	...
Average GS grade	10.17	10.17	...
Average GS salary	$23,952	$23,952	...
Average salary of ungraded positions	$18,244	$18,244	...

DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
Resource Management, 1981

JUSTIFICATION

Authorization:

Public Law 96-487--The Alaska National Interest Lands Conservation Act.

Discussed in detail herein.

16 U.S.C. 668dd - 668ee--National Wildlife Refuge System Administration Act of 1966, as amended.

This Act constitutes an "Organic Act" for the National Wildlife Refuge System by providing guidelines and directives for administration and management of all areas in the system, including "wildlife refuges, areas for the protection and conservation of fish and wildlife that are threatened with extinction, wildlife ranges, game ranges, wildlife management areas, or waterfowl production areas."

16 U.S.C. 742a - 743j--Fish and Wildlife Act of 1956, as amended.

Establishes a comprehensive national fish and wildlife policy and requires the development and distribution of fish and wildlife information and to (1) "...take such steps as may be required for the development, advancement, management, conservation, and protection of the fisheries resources;" and (2)"...for wildlife resources through research...and other means."

The Alaska National Interest Lands Conservation Act - An Overview:

The Alaska National Interest Lands Conservation Act (ANILCA), in response to Section 17(d)(2) of the Alaska Native Claims Settlement Act of 1971, was signed into law on December 2, 1980. The ANILCA does not focus exclusively on establishing national wildlife refuges and other conservation units as the title suggests. This legislation also:

- recognizes the existing uses of and other special circumstances associated with the 16 refuges, 13 wilderness areas and six wild and scenic rivers created by the Act and administered by FWS by including detailed guidance that builds on existing policies and procedures concerning management emphases, planning requirements and permissable uses;
- expedites transfer of land to natives and the State authorized under ANCSA and the Alaska Statehood Act;
- assures continued opportunities for local rural Alaskans to use renewable resources on public lands for subsistence purposes;
- encourages state administration of the subsistence provisions of the Act;
- facilitates energy and mineral exploration of and development on most federal lands; and
- requires major studies of important fish and wildlife resources, such as the fisheries and other resources of the Bristol Bay region and the barren ground caribou herds, some of which must be completed in as little as three years.

FWS Implementation Strategy:

Service administration of the 16 Alaska refuges totalling 76 million acres will differ considerable from elsewhere in the National Wildlife Refuge System. Initially, accommodation of authorized uses of refuge lands in Alaska in a manner that minimizes impacts on fish and wildlife will be a principal objective of management. Manipulating fish and wildlife populations and habitats is usually a principal emphasis of management in the rest of the refuge system. The Service will have to deal with recreational uses on these 16 refuges as elsewhere. In addition, other users of these lands, including subsistence users, energy and mining interests, hunting and fishing guides, and commercial fishermen must be accommodated.

Service implementation of the Act also focusses on facilitating state activities related to the statutory requirement concerning subsistence uses of renewable resources. Financial support for the state programs and a cooperative effort to better understand the nature and magnitude of subsistence uses and the impacts of those uses on fish and wildlife populations are the principal approaches used to support the state's initiatives. In addition, four studies (Bristol Bay, Arctic NWR Coastal Plain, Central North Slope and Barren Gound Caribou) are being initiated in response to specific provisions of the Act to better understand the relationships between important fish and wildlife resources and energy and economic development in Alaska and how to reduce the adverse impacts on these resources from such development.

FY 1981 Supplemental Budget Request:

Additional FY 1981 funding and positions are requested to initiate FWS implementation of the most important and pressing requirements of the ANILCA. It is assumed funding will be available about July 1, 1981. Hence, Service efforts in FY 1981 will focus on:

- o hiring personnel and moving them to Alaska and to field stations as necessary;
- o familiarizing staff with their new responsibilities and the geographic area they will cover;
- o ordering supplies and equipment;
- o planning activities to be initiated in FY 1982 and later; and
- o contracting for initial fish and wildlife studies.

To the maximum extent possible, preliminary procedural steps will be initiated before action on this appropriation request is completed so that the Service will be able to implement this Act immediately after funds are appropriated. Specific amounts requested for each budget activity and subactivity in support of the Service's implementation strategy are displayed on the following table and discussed below.

U.S. Fish and Wildlife Service
Alaska National Interest Lands Conservation Act (P.L. 96-487)

Programmatic Allocation of FY 1981 Supplemental Budget Request
($000)

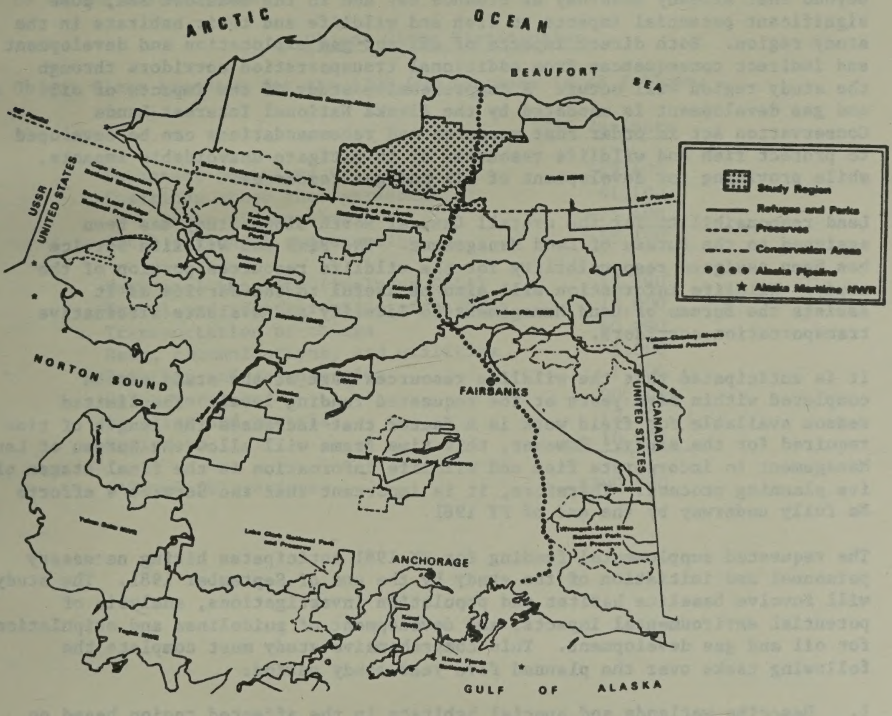
		FWS Programs				
Action Required	ANILCA References	Land and Water Resources	Migratory Birds	Mammals	Fishery Resources	Totals
Administer and Protect 16 National Wildlife Refuges Totaling 76 Million Acres						
Basic Management for Nine New and Seven Expanded Refuges	Sections 302-304	-	$801	$654	$345	$1,800
Management of Subsistence Uses on Refuges	Sections 801, 802 804, 807, 809, 810 811, 814, 816(b)	-	-	325	-	325
Arctic NWR Coastal Plain Resource Assessment	Section 1002	-	200	275	-	475
Publish Maps	Section 103	-	150	-	-	150
Subtotals, Refuges		-	$1,151	$1,254	$345	$2,750
Subsistence						
Reimbursement for State Subsistence Program (no-year grant)	Section 805(e)	-	-	-	$2,100	$2,100
Surveys and Censuses	Section 812	-	-	-	-	-
Subtotals, Subsistence		-	-	-	$2,100	$2,100
Special Studies						
Barren Ground Caribou Study	Section 306	-	-	$200	-	$200
Central North Slope Study	Sections 1001, 1005, 1006	$200	-	-	-	200
Bristol Bay Study	Section 1203	-		-	$750	750
Subtotals, Special Studies		$200	-	$200	$750	$1,150
Totals		$200	$1,151	$1,454	$3,195	$6,000

HABITAT PRESERVATION

Land and Water Resources Development Planning Program

Alaska Central North Slope Study ($200,000; 2 positions) - Section 1001 of the Alaska National Interest Lands Conservation Act requires the Secretary of the Interior to conduct a comprehensive study of the oil and gas potential of all Federal lands in Alaska North of 68 degrees North latitude and east of the National Petroleum Reserve - Alaska, exclusive of lands in conservation units created by the Act (see following map). Approximately 4.5 million acres of public lands to be studied occur within the eight million acre study region. The remaining land consists of native and State selections under the Alaska Native Claims Settlement and Alaska Statehood Acts and the Trans-Alaska Pipeline Corridor.

Central North Slope Study


ARCTIC OCEAN
BEAUFORT SEA
USSR
UNITED STATES
NORTON SOUND
FAIRBANKS
ANCHORAGE
UNITED STATES
CANADA
GULF OF ALASKA
National Petroleum Reserve-Alaska
68° Parallel
Cape Krusenstern National Monument
Bering Land Bridge National Preserve
Noatak National Preserve
Kobuk Valley National Park
Gates of the Arctic National Park and Preserve
Arctic NWR
Yukon Flats NWR
Yukon-Charley Rivers National Preserve
Denali National Park and Preserve
Tetlin NWR
Wrangell-Saint Elias National Park and Preserve
Lake Clark National Park and Preserve
Yukon Delta NWR
Togiak NWR
Kenai NWR
Kenai Fjords National Park
▦ Study Region
Refuges and Parks
Preserves
Conservation Areas
● ● ● ● Alaska Pipeline
★ Alaska Maritime NWR

Section 1005 of the Act further requires the Secretary to evaluate the impact of oil and gas exploration, development, production, and transportation and other human activities on the wildlife resources of these lands, including impacts on the Arctic and Porcupine caribou herds, polar bear, muskox, grizzly bear, wolf, wolverine, seabirds, shorebirds, and migratory waterfowl. Section 1006 requires the Secretary to consult with the Secretary of Transportation to identify and evaluate alternative transportation routes relative to the oil and gas potential of these lands and adjacent areas.

The Secretary's report to the President and the Congress, to be prepared by the Bureau of Land Management with Fish and Wildlife Service assistance, is due no later than eight years after enactment. In addition to assessing the oil and gas potential of these lands, the report must include an evaluation of alternative transportation routes and make recommendations for wilderness designations and for protection of the wildlife resources of these lands.

Pending oil and gas exploration and development on Alaska's North Slope, beyond that already underway at Prudhoe Bay and in the Beaufort Sea, pose significant potential impacts to fish and wildlife and their habitats in the study region. Both direct impacts of oil and gas exploration and development and indirect consequences from additional transportation corridors through the study region will occur. A comprehensive study of the impacts of oil and gas development is mandated by the Alaska National Interest Lands Conservation Act in order that measures and recommendations can be developed to protect fish and wildlife resources or to mitigate unavoidable impacts, while providing for development of oil and gas resources.

Lead responsibility for the overall Central North Slope Study has been assigned to the Bureau of Land Management. The Fish and Wildlife Service has been assigned responsibility for the wildlife resources portion of the study. Wildlife information will also be useful to the Service as it assists the Bureau of Land Management to identify and evaluate alternative transportation corridors.

It is anticipated that the wildlife resources part of the study can be completed within five years at the requested funding level. The limited season available for field work is a factor that increases the length of time required for the study. However, this time frame will allow the Bureau of Land Management to incorporate fish and wildlife information in the final stages of its planning process. Therefore, it is important that the Service's efforts be fully underway by the end of FY 1981.

The requested supplemental funding for FY 1981 anticipates hiring necessary personnel and initiation of the study by the end of September 1981. The study will involve baseline habitat and population investigations, analysis of potential environmental impacts, and development of guidelines and stipulations for oil and gas development. This comprehensive study must complete the following tasks over the planned five year study period:

1. Describe wetlands and special habitats in the affected region based on geomorphology, vegetation, and nutrients/chemistry.

2. Assess the utilization of these wetlands by fish and wildlife, including invertebrates and fish, shorebirds, and migratory waterfowl.

3. Determine distribution patterns and abundance of fish, birds, and mammals in the affected area, and develop maps depicting critical and important summer and winter habitat and ranges.

4. Study specific impacts on fish and wildlife in the affected region from seismic exploration, exploratory drilling, and development/production activities for oil and gas (such as effects of seismic blasting on overwintering fish or caribou winter use).

5. Develop proposed guidelines, stipulations, and recommendations for protection of fish and wildlife resources in planning petroleum development activities.

6. Monitor any oil and gas exploration and development to document impacts and to refine stipulations.

Object Class Distribution

The Object Class breadown for the $200,000 increase is as follows:

	1981 Estimate
Permanent positions (2)	$49,400
Positions other than permanent	41,100
Lapse (10 months)	-75,400
Total personnel compensation	15,100
Personnel benefits (includes COLA)	15,300
Travel and transportation of persons	10,000
Transportation of things	40,000
Rent, communications, and utilities	6,000
Printing and reproduction	1,000
Other services	90,400
Supplies and material	12,200
Equipment	10,000
Total Obligations	$200,000

WILDLIFE AND FISHERY RESOURCES

Management of New and Expanded National Wildlife Refuges in Alaska - ($1,800,000; 64 positions) - Section 302 of the Alaska National Interest Lands Conservation Act establishes nine new units of the National Wildlife Refuge System totaling about 26.6 million acres. Section 303 consolidates the 18 refuges comprising 22.3 million acres which existed prior to December 1, 1978, into seven units, enlarges them by 27.1 million acres for a total area of 49.4 million acres and, in some cases, changes their names. The Act also cancels the national monument designations and refuge withdrawals of December 1, 1978, and February 11, 1980, respectively. These 16 refuges totaling 76 million acres and their fish and wildlife resources are described following this overview discussion and their locations are displayed on the accompanying map. Section 304 establishes policies and requirements under which these refuges will be administered.

The principal purposes for which the Alaskan Refuges were established and enlarged include:

- o conservation of fish and wildlife and their habitats in their natural diversity;
- o fulfillment of international treaty obligations;
- o assuring preference for traditional subsistence uses by local rural residents;
- o maintenance of water quality and quantity; and
- o protection of special values, such as archeological and geological features

The focus of management on these units is maintenance of all natural and cultural values, with particular emphasis on fish and wildlife and their habitats. In addition, traditional as well as other authorized uses of these lands and resources, including the important and sensitive issue of subsistence use, must be accommodated in a manner that perpetuates the habitat and the resources it supports.

In managing these new units of the National Wildlife Refuge System, however, several factors and difficulties unique to Alaska become important in determining management objectives and strategies:

- o native cultures and the "frontier" lifestyle of other rural Alaskans, are based on subsistence use of fish and wildlife and other products of the land by tradition and due to the high cost of alternative sources of food and materials;
- o the remoteness of most of these refuges, their immense size, and resultant transportation difficulties;
- o low human populations and density;
- o the great diversity and, in some instances, fragility of these pristine ecosystems;
- o the legislative mandate to assure that adjacent habitat in the same watershed or other areas of ecological concern is managed in concert with refuge habitat; and

- o the large number and great extent of inholdings that are expected to remain indefinitely within refuge boundaries.

Consequently, administration of these new refuges and additions will require a mixture of management expertise not normally utilized on Service lands and staffing patterns will vary somewhat from that of refuges in the lower 49 states. Due to the specialized capabilities required such as ecologists, social anthropologists, archeologists, hydrologists, land use planners and economists with responsibilities related to several refuges, the Regional Office in Anchorage will house a substantial staff of such specialists.

Since the Service utilizes the Program Management System to manage the various activities in which it engages, funds and personnel to accomplish the work mandated by the Alaska National Interest Lands Conservation Act are being requested in the Migratory Bird, Mammals and Non-Migratory Birds, and Fishery Resources Programs for refuges in Alaska. Approximate allocation of funds and positions by field stations and for regional office support are itemized in the following table for three Service programs involved.

	Program			
	Migratory Birds	Mammals and Non-Migratory Birds	Fishery Resources	Totals
	($000/FTP Positions/Other Positions)			
New Refuges				
Alaska Peninsula	$ 35/3/1	$ 30/1/1	$ 15/1/0	$ 80/5/2
Becharof	10/1/0	30/1/0	105/1/1	145/3/1
Innoko	45/1/0	30/1/0	14/1/0	89/3/0
Kanuti	40/1/0	10/0/0	9/0/0	59/1/0
Koyukuk	38/2/1	25/1/0	7/0/0	70/3/1
Nowitna	20/1/0	20/1/0	24/1/0	64/3/0
Selawik	45/2/0	25/1/1	6/0/0	76/3/1
Tetlin	42/1/0	30/2/1	3/0/0	75/2/1
Yukon Flats	100/2/1	45/2/0	23/2/0	168/6/1
Subtotal	$375/14/3	$245/9/3	$206/6/1	$826/29/7
Refuge Additions				
Alaska Maritime	$145/4/1	$ 50/2/0	$ 13/1/0	$208/7/1
Arctic	16/1/0	40/2/1	10/1/0	66/4/1
Izembek	--	--	--	--
Kenai	--	80/2/1	--	80/2/1
Kodiak	--	10/0/0	14/1/0	24/1/0
Togiak	18/2/0	35/1/0	32/2/1	85/5/1
Yukon Delta	222/4/2	40/2/1	70/2/0	332/8/3
Subtotal	$401/11/3	$255/9/3	$139/7/1	$795/27/7
Regional Office	$ 25/3/2	$154/5/0	--	$ 179/8/2
TOTALS	$801/28/8	$654/23/6	$345/13/2	$1,800/64/16

The funds and positions requested will be used to:

- o establish a Service presence on the ground;
- o provide basic protection for migratory bird, mammals and non-migratory bird, and fishery resources and habitats;
- o provide necessary services to natives and others using or dependent on these refuges; and
- o initially protect the natural, scientific, historical, and cultural values of the new and expanded refuges.

The Service will be able to administer the areas in basic compliance with the National Wildlife Refuge Administration Act and the Alaska National Interest Lands Conservation Act (ANILCA). However, only the highest priority biological, historical, archeological and administrative problems can be addressed in FY 1981.

Minimal needs common to all refuges include the following: salaries for permanent and part-time employees; the cost of transferring personnel to new duty stations; costs of establishing, furnishing, and maintaining residences and support facilities of refuge headquarters and field installations; vehicles, boats, communications equipment, basic wildlife and habitat surveys, basic supplies and materials, and travel between remote areas and headquarters sites and to the regional offices.

Establishment of nine new refuges and major additions to seven existing units, requires a substantial amount of equipment (in addition to aircraft being requested for these lands). Due to the isolation, vast distances, and dangers typical of work on Alaskan refuges, reliable land-sea-air communications is absolutely essential. Each of the nine new refuges should be equipped with a suitable base station and at least two mobile units. Fourwheel drive trucks, snowmobiles, and office and shop equipment will have to be obtained. While these equipment needs are primarily "shelf" items, funding must be provided in FY 1981 so that this equipment can be ordered and transported to these new units in time for the 1982 field season.

Without the requested funds and personnel, the Service will be unable to effectively administer these areas in a manner that protects the internationally significant resources involved while allowing legitimate uses of these units. Many of these refuges are being subjected to questionable mining activity and other forms of trespass. Such use as well as other uncontrolled human disturbance will result in loss of fish and wildlife habitat and productivity. Any sign of laxity in implementing the Act on the part of FWS will likely result, almost immediately, in a testing of the Service's resolve to protect this habitat. Thus, legitimate use of these lands and resources in the future will be jeopardized. Since sport hunting and commercial trapping on National Park Service lands are more constrained than previously, use of Fish and Wildlife Service lands for these purposes will increase significantly as a result of the ANILCA. In addition, obtaining baseline data on fish and wildlife populations and their habitats, a prerequisite to the preparation of comprehensive management plans and sound management decisions, would have to be deferred.

The new and expanded refuges created by ANILCA support significant fishery resources, including all five species of Pacific salmon, which contribute to subsistence, sport, and commercial fisheries. Other species within the refuge units are locally important and include northern pike, Arctic grayling, lake trout, whitefish, sheefish, and Arctic char. Local populations of some species, such as the Dolly Varden (trout) of the Tanana River drainage in Tetlin refuge, may be of unique scientific interest.

These fishery resources are receiving increasing pressure from land use changes and contaminants associated with oil and gas exploration and development and mining as well as from subsistence, sport, and commercial harvest. In some areas, negative impacts from these pressures are evidenced by decreasing populations. In most areas, however, data regarding these fishery resources are insufficient to predict trends or impacts on populations.

As stewards of fish populations occurring on the newly established refuges, the Fish and Wildlife Service's basic responsibility is to maintain the quality of aquatic systems for all forms of fish life: resident and anadromous, commercially and biologically important, game and non-game species. The Service's approach for carrying out these responsibilities will be a cooperative venture with the State, adjacent Federal land managers and other adjacent landowners.

Brief Description of Refuges Established or Expanded by the Alaska National Interest Lands Conservation Act (P.L. 96-487)

New Refuges

The Alaska Peninsula National Wildlife Refuge includes 3,500,000 acres on the south side of the Alaska Peninsula. It is bounded by Becharof Refuge to the north and the Izembek and Alaska Maritime Refuges to the south. The refuge supports fish and wildlife resources of local, national, and international significance. These resources include major populations of brown bear, caribou, moose, as well as substantial marine mammal populations, vital staging areas for waterfowl and shorebirds, significant raptor populations, large nesting colonies of marine birds, salmon populations of considerable importance to local, national, and international fisheries and a variety of other fish and wildlife species.

The Becharof National Wildlife Refuge, encompassing 1,200,000 acres near the North end of the Alaska Peninsula, supports one of the densest known populations of the great Alaska brown bear. This area includes habitat used by a discrete population of bears for denning and foraging. Readily available prey such as caribou, moose, and spawning salmon are key to this intensive use by bears. Ducks, swans, eagles and other birds are also found in abundance. The Egegik River drainage including Lake Becharof and its feeder streams produces nearly 5 percent of the United States annual catch of sockeye salmon. This one drainage accounts for approximately 10 percent of the total Bristol Bay commercial catch of 20-27 million salmon annually.

The Innoko National Wildlife Refuge (3,850,000 acres) is south of Koyukuk, a small settlement on the Yukon River, and incorporates a major wetland complex. This transition between the tundra of western Alaska and the boreal forest of the interior valleys is a major waterfowl nesting area. It produces 380,000 ducks each year that migrate primarily to Washington and California, although scaup reared in this habitat often reach the Atlantic Coast. It also produces 65,000 geese, with the white-fronted geese migrating through the central U.S. to Mexico while Canada geese orient to the Pacific Coast. Along with snipe, other notable bird species which nest on this refuge include sandhill cranes by the thousands, bald eagles, osprey and peregrine falcons. Moose are of primary importance among large mammals with major wintering concentrations alone the Kaiyuh River. Black bears and beaver are also abundant, as are many other species of furbearers. Chum, chinook and coho salmon as well as several resident fish species abound in refuge waters. Approximately 300,000 salmon are harvested by subsistence users with a small local commercial fishery accounting for a portion of the take.

Across the Trans-Alaska Pipeline from the Yukon Flats National Monument is a smaller solar basin enclosing the 1,430,000 acre Kanuti National Wildlife Refuge. Producing at least 75,000 waterfowl that migrate to many parts of North America, including Mexico, Kanuti is particularly noted for providing high density nesting habitat for white-fronted geese that winter along the Gulf of Mexico. The refuge also supports large populations of furbearers and moose and is a traditional wintering area for portions of the Western Arctic caribou herd, historically the largest in Alaska. Common species of fish found in refuge waters include the northern pike, whitefish, grayling, sheefish and king and chum salmon. Local subsistence use is approximately 10,000 salmon, primarily chum, annually.

North of the Yukon River, the Koyukuk River floods a forested basin dotted with many lakes. The 3,550,000 acre Koyukuk National Wildlife Refuge produces substantial numbers of the elusive snipe as well as numerous other shore and water birds. Approximately 75,000 Canada and white-fronted geese and over 300,000 ducks, mainly pintails, widgeon, scaup and scoters, are produced in this area. It also contains the westernmost nesting grounds of the trumpeter swan, with a population of about 150. Moose, black bear and wolves are abundant. Caribou of the western Arctic herd winter throughout the unit. The area provides excellent habitat for such furbearers as beaver, muskrat, mink and marten. Chinook and chum salmon, sheefish and whitefish are important fishery resources; northern pike abound in lowland lakes and Arctic grayling in colder headwater streams. About 20,000 chum salmon are utilized for subsistence. The occurrence of the attractive Nogahabara sand dunes in the northern part of the unit adds a unique geological dimension to the refuge ecosystem.

Nowitna National Wildlife Refuge (1,560,000 acres) is another key nesting area for white-fronted geese as well as trumpeter swans and several other species of waterfowl. Nearly a quarter of a million waterfowl migrate down the Central Flyway to coastal Texas and Louisiana. Wetland areas also support important marten and other furbearer populations. The southern portion of the refuge is home to caribou and grizzly bear, while moose concentrate in larger numbers in willow thickets along the Yukon River at the northern end of this refuge during the winter. The Yukon River is also an important salmon migration route. The Nowitna River, designated a wild river by the Act, flows into and through the refuge and is a valuable spawning ground for the sheefish, an Arctic species often referred to as the "freshwater tarpon". However, rapidly increasing recreational use of this river has the potential of disrupting nesting by white-fronted geese if not properly monitored and controlled.

The 2,150,000 acre Selawik National Wildlife Refuge is the northwesternmost of the great wetland basins of Alaska. Here, at the crossroads of Asiatic and North American Flyways, can be found birds from five continents: bluethroats and yellow wagtails from Antarctica; upland and pectoral sandpipers from South America and wheatears from Africa. Waterbirds nesting in Selawik also disperse to all parts of the lower 48 states; greater scaup to the Atlantic Coast; lesser scaup to Louisiana; white-fronted geese to national wildlife refuges on the coast of Texas and numerous species such as pintails, mallards and greenwinged teal to national wildlife refuges in California, Oregon, and Washington. Selawik is also a migration and wintering area for such diverse wildlife as the sheefish and caribou and the year-round home to many moose, bear and wolves.

The 700,000 acre Tetlin National Wildlife Refuge abuts the Alcan Highway on the south as it enters Alaska from Canada. This refuge is the northernmost terminus of many migratory birds seldom seen in other parts of Alaska, such as redhead and ring-necked ducks and blue-winged teal. Aside from species that regularly nest in this habitat, Tetlin National Wildlife Refuge, like the Yukon Flats basin, becomes very important in years when waterfowl which normally nest in Canada and the North Central United States overfly drought-stricken pothole areas seeking stable water conditions in Alaska. For example, in 1977 waterfowl nesting densities in Tetlin increased 50 percent over recent years with significant increases in nesting canvasbacks (up 82 percent) and redheads (up 700 percent) due to poor water conditions in the Prairie Pothole region of the United States and Canada. Grayling, burbot, whitefish and Dolly Varden are the most common fish. The Tanana River drainage population of Dolly Varden (trout) is of special scientific interest because of its genetic isolation. Lake trout and northern pike are present in larger lakes on the refuge.

The Yukon Flats National Wildlife Refuge (8,630,000 acres) annually provides breeding habitat for more than 2,100,000 ducks, 16,500 geese and several million other birds which migrate to all parts of North and South America each fall. Between 10 and 25 percent of the North American breeding population of canvasback ducks are found there. Yukon Flats is also important because of its capacity to provide nesting habitat for some ducks displaced from the prairie pothole regions of the U.S. and Canada during drought years. Aquatic resources of Yukon Flats NWR are extensive. Over one million acres of lakes and more than 25,000 miles of rivers and streams are located within its boundaries. These waters support 21 different species of fish. Both chinook and coho salmon travel through Yukon Flats on a 2,000 mile trip to their spawning grounds--probably the longest spawning run in the world. Another species which contributes to the fishery is the inconnu (sheefish) which, in recent years, has become a prized catch for sport fishermen. The refuge also encompasses the entire Hodzana River watershed. The legislative history of the Act reflects a commitment to the regional (native) corporation to seek special regulations that will allow some mineral exploration and some land selections to be worked out with the Service in the headwaters of this river.

Expanded Refuges

The most far-flung, remote and colorful refuge is the Alaska Maritime National Wildlife Refuge (3,548,000 acres including 11 existing refuges). This refuge consists of rocks, islands, spires, reefs and headland cliffs which dot the marine waters of Alaska from the Chukchi Sea to the Aleutian Island chain to the

Southeast panhandle. In sharp contrast to the millions of acres required for nesting shorebirds and waterfowl inland, many millions of seabird nests are crowded onto all suitable habitat on this refuge. Marine bird resources of Alaskan waters probably amount to over a hundred million birds of at least 55 species. To date, over 135 nesting locations have been described outside the Aleutian Islands, of which 26 each contain over a million nests. In addition, this habitat is important to one or more species of mammals--including sea lions, harbor and hair seals, walrus, sea otters and polar bears. Sixteen species of whales, many endangered, also use waters lying immediately offshore of these areas.

The 18,055,000 acre Arctic National Wildlife Refuge in northeastern Alaska includes the former William O. Douglas Arctic National Wildlife Range. It represents one of the most spectacular assemblages of Arctic plants, animals and land forms in the world. The 120,000 animals of the Porcupine caribou herd, presently the continent's largest, migrate through and winter in large numbers on this new refuge. A majority of the calving grounds for this herd is on the coastal plain within the refuge. State lands in the Porcupine River basin which are surrounded by the refuge are also important to this caribou herd and will be managed cooperatively with the Service lands to assure its continued viability. This new refuge also hosts several hundred moose, several thousand Dall sheep and such other wildlife as grizzly bears, wolves, wolverine, lynx, river otter, marten, fox and the endangered peregrine falcon. The refuge supports important grayling, Arctic char, whitefish, lake trout, and northern pike populations.

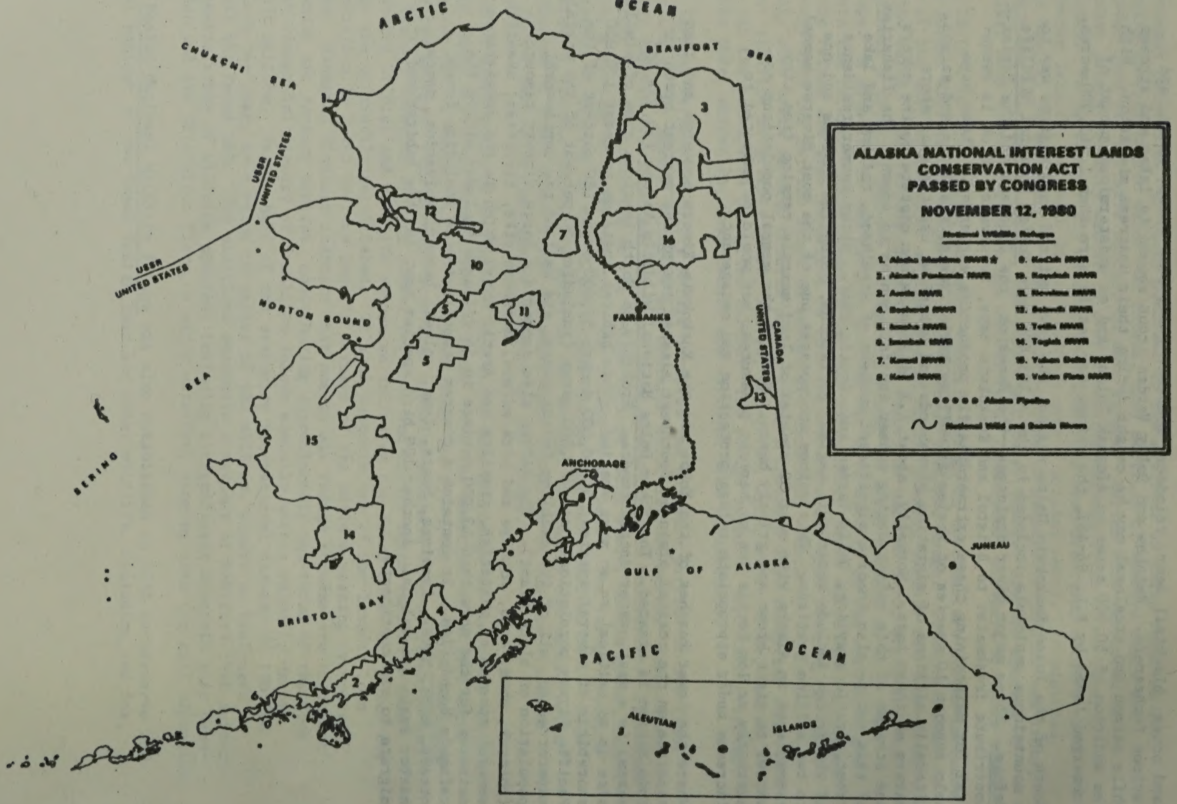
The Izembek National Wildlife Refuge occupies the northern portion of the final 45 miles of the Alaska Peninsula and contains about 321,000 acres. Izembek and Moffet Lagoons plus Cold and Morzhovoi Bays, lie within its boundaries. Principal wildlife species occurring on the refuge include black brant, Canada geese, emperor geese, a variety of other waterfowl and Alaska brown bear. The refuge protects a portion of habitat of the 36,000 animal Alaska Peninsula caribou herd. Four species of Pacific salmon are found on the refuge. Virtually the entire world population of black brant stage for their fall migration to the west coast of the United States in the lagoons and bays on the refuge.

About 20 miles south of and across Cook Inlet from Anchorage is the Kenai National Moose Range which was established in 1941. With the addition of 240,000 acres adjacent to the Range, P.L. 96-487 established the 1,970,000 acre Kenai National Wildlife Refuge. This diverse ecosystem contains mountain ranges, glaciers and ice fields, forests, lowland lakes, wetlands and rivers which support a wide diversity of fish and wildlife resources including the Kenai moose for which the Range was originally established. It also supports one of the largest loon populations in North America and six percent of the world's nesting trumpeter swans. Research findings indicate that nearly all refuge streams are important spawning and nursery habitat, contributing approximately one-third of the Cook Inlet commercial fishery of 5 million salmon annually with a value in excess of $30 million. Nearly half of the statewide recreational fishery of 100,000 anglers per year, or a value in excess of $20 million, occurs on drainages within the Kenai NWR. The additions encompass a variety of habitats that support a diverse array of wildlife species, including a significant mountain goat population and the Chickaloon Flats, a major waterfowl staging area for Fall migration.

The Kodiak National Wildlife Refuge was also established in 1941 to preserve the natural habitat of the famed Kodiak bear and other wildlife, including red fox, land otter, blacktail deer, reindeer, mountain goat, Dall sheep, moose, and various furbearers. Rainbow and Dolly Varden trout abound in lakes and streams while salmon and steelhead may be caught during their upstream migration. With the addition of 50,000 acres on Afognak Island and an undetermined amount of submerged lands by P.L. 96-487, the refuge now totals more than 1,865,000 acres.

South of the Yukon-Kuskokwim Delta region, the low, wetland tundra gives way to a mountainous peninsula included in the 4,105,000 acre Togiak National Wildlife Refuge. Three major river drainages--the Kanektok, the Goodnews and the Togiak--contribute freshwater to Bristol and Kuskokwim Bays, freshwater which is essential for maintaining these extraordinarily productive estuaries. These bays help support 10 species of whales as well as harbor seals, sea lions and salmon. Literally millions of migrating shorebirds and waterfowl use the near-shore waters of these bays. Normally, about 1.7 million salmon migrate up the rivers and streams of this refuge during summer and fall months to spawn. The fisheries of this refuge also involve significant numbers of steelhead, rainbow and lake trout, Arctic grayling, Dolly Varden and Arctic char. Other summer residents of the refuge include waterfowl, eagles, gyrfalcons, peregrine falcons and one to two million seabirds. This refuge encompasses one of the most diverse mammal assemblages in Alaska with over 32 species of land mammals ranging from tiny shrews to giant brown and grizzly bears. Some of the mammal populations are currently at low levels due to harvest pressures, but would be expected to increase under appropriate refuge protection and management.

Where the lower reaches of the Yukon and the Kuskokwim Rivers converge and then separate on the coastal plain of Southwest Alaska, one of the wettest spots in this Nation is created. The Yukon Delta National Wildlife Refuge (19,624,000 acres) is a vast, water-dotted tundra. Probably no North American area of similar size is so critical to so many species. This habitat sustains at least 100,000 shorebirds of several species; 3,000,000 ducks; 50,000 swans (80 percent of the Pacific Flyway population); and 720,000 geese (including 80 percent of the world's emperor geese, all of its cackling Canada geese, and half of the continental population of black brant). The refuge also supports a large fishery resource (chinook, chum, coho, sockeye and pink salmon, northern pike, blackfish, sheefish, several species of whitefish, grayling and Arctic char) which is the subsistance mainstay for the more than 13,000 natives in 56 villages included within the refuge's boundaries. It contains a diverse mammal resource including foxes, otters, mink, hares, lemmings, bears, lynx, wolves, beaver, wolverine, moose, harbor seals and walrus. Another 100 bird species nest in this habitat and migrate to six continents.


ALASKA NATIONAL INTEREST LANDS CONSERVATION ACT PASSED BY CONGRESS
NOVEMBER 12, 1980
National Wildlife Refuges
1. Alaska Maritime NWR ☆
2. Alaska Peninsula NWR
3. Arctic NWR
4. Becharof NWR
5. Innoko NWR
6. Izembek NWR
7. Kanuti NWR
8. Kenai NWR
9. Kodiak NWR
10. Koyukuk NWR
11. Nowitna NWR
12. Selawik NWR
13. Tetlin NWR
14. Togiak NWR
15. Yukon Delta NWR
16. Yukon Flats NWR
● ● ● ● ● Alaska Pipeline
∿ National Wild and Scenic Rivers
ARCTIC
OCEAN
CHUKCHI SEA
BEAUFORT SEA
USSR
UNITED STATES
CANADA
UNITED STATES
NORTON SOUND
BERING SEA
FAIRBANKS
ANCHORAGE
JUNEAU
BRISTOL BAY
GULF OF ALASKA
PACIFIC OCEAN
ALEUTIAN ISLANDS
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Object Classification Distribution

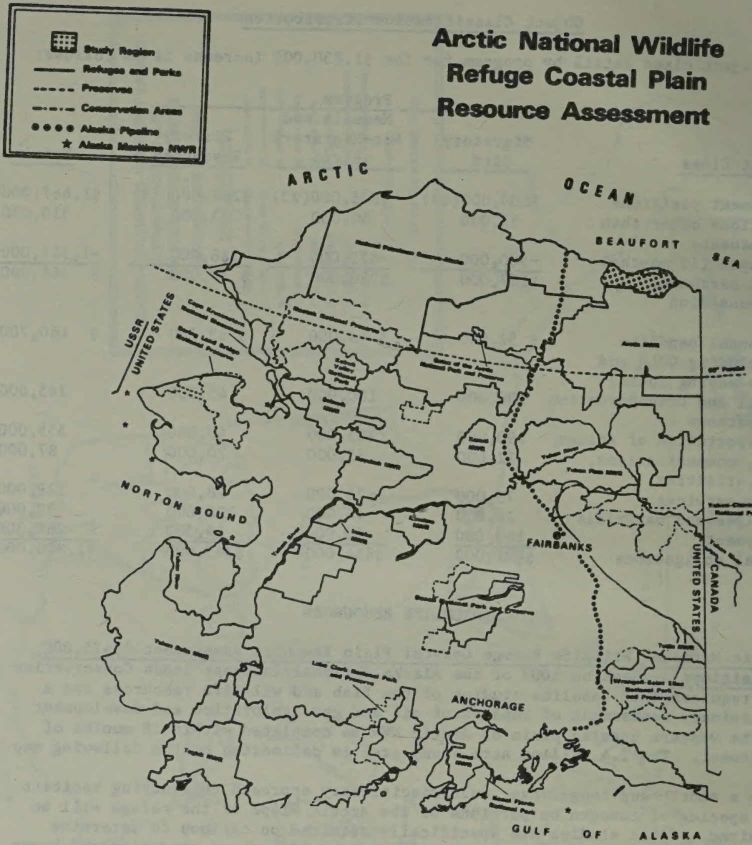
The object class detail by program for the $1,830,000 increase is as follows:

	Program			
Object Class	Migratory Bird	Mammals and Non-Migratory Birds	Fishery Resources	Totals
Permanent positions	$600,000(28)	$805,000(23)	$262,000(13)	$1,667,000(64)
Positions other than permanent	57,000	50,000	203,000	310,000
Lapse (10 months)	-500,000	-625,000	-386,000	-1,511,000
Total personnel compensation	$157,000	$230,000	$ 79,000	$ 466,000
Personnel benefits (including COLA and some moving costs)	$ 52,000	$ 45,000	$ 63,700	$ 160,700
Travel and transportation of persons	100,000	100,000	45,000	245,000
Transportation of things	190,000	125,000	40,000	355,000
Rent, communications, and utilities	32,000	35,000	20,000	87,000
Other services	75,000	25,000	28,000	128,000
Supplies and materials	26,000	44,000	20,000	90,000
Equipment	169,000	50,000	49,300	268,300
Total obligations	$801,000	$654,000	$345,000	$1,800,000

WILDLIFE RESOURCES

Arctic National Wildlife Refuge Coastal Plain Resource Assessment ($475,000; 3 positions) - Section 1002 of the Alaska National Interest Lands Conservation Act requires that baseline studies of the fish and wildlife resources and a preliminary assessment of impacts of oil and gas exploration and development on the western coastal plain of Arctic NWR be completed within 18 months of enactment. The 1.4 million acre study area is delineated on the following map.

Both a short- and long-range, multidisciplinary approach to studying habitats and species of concern on portions of the Arctic Slope of the refuge will be required. Field studies are specifically required on caribou to determine habitat requirements during the calving season, effects of predation and human disturbance, particularly any synergistic effects of such factors, and migratory behavior. Other priorities include studies of moose, white-fronted and Canada geese, raptor, wolf, grizzly bear, polar bear, and freshwater and anadromous fish populations occurring in the study area. Final guidance for private or public seismic exploration for oil and gas of a portion of the refuge must be published within 2 years. This study is funded in both the Migratory Bird and in the Mammals and Non-Migratory Bird Programs.



Arctic National Wildlife Refuge Coastal Plain Resource Assessment

Task to be accomplished in support of this study include:

1. Conduct basic inventories of several migratory bird species, including Canada, white-fronted and snow geese, whistling swans, black brant, duck species including old squaw, green-winged teal, pintail, bufflehead, Stellar's and king eiders, and scoters, and several raptors, the most significant being the peregrine falcon. Several mammals and non-migratory bird species, including moose, caribou, polar bear, Dall sheep, gray wolf, Arctic foxes and ptarmigan as well as fishery resources will also be inventoried.

2. Identify, classify and map important fish and wildlife habitats, including breeding, staging and feeding areas, for these species. Determine the carrying capacity for these habitats.

3. Assess the impacts of human activities, including gravel extraction, uses of water for oil exploration, and other construction activities on fish and wildlife populations in the study area and their habitats.

4. Analyze the potential impacts of oil and gas exploration, development and production on fish and wildlife and their habitats, and on the subsistence lifestyle of affected natives and other people.

Emphasis in FY 1981 will be on hiring staff, transferring them to Alaska as necessary, developing proposals for contract studies and planning future work. In addition to salaries and other personnel-related costs, funds requested for FY 1981 will be expended for aircraft rental in order to accomplish the various habitat and wildlife surveys and for supplies and equipment needed to support an extensive field effort.

Unless this study is accomplished, the Service will be unable to develop the information needed to adequately support the regulations governing seismic exploration in the study area required by Section 1002(d). Thus, strictures on such exploration may have to be more restrictive to insure protection of the resources of the study area, particularly the caribou dependent on this habitat.

Object Classification Distribution

The object class detail by program for the $475,000 increase is as follows:

	Program		
Object Class	Migratory Bird	Mammals and Non-Migratory Birds	Totals
Permanent positions	$ 35,000(1)	$ 70,000(2)	$105,000(3)
Positions other than permanent	13,000	25,000	38,000
Lapse (10 months)	- 29,000	- 58,000	-87,000
Total personnel compensation	$ 19,000	$ 37,000	$ 56,000
Personnel benefits (including COLA)	$ 4,500	$ 13,000	$ 17,500
Travel and transportation of persons	5,000	15,000	20,000
Transportation of things	---	20,000	20,000
Rent, communications and utilities	---	3,000	3,000
Other services	100,000	160,000	260,000
Supplies and materials	25,000	9,000	34,000
Equipment	46,500	18,000	64,500
Total obligations	$200,000	$275,000	$475,000

Migratory Bird Program

Preparation of Maps and Legal Descriptions ($150,000, no positions) - Section 103(b) of the Alaska National Interest Lands Conservation Act provides that as soon as practicable after enactment, a map and legal description of each unit in the National Wildlife Refuge System in Alaska including wilderness areas and wild and scenic rivers administered by the FWS, shall be published in the Federal Register and filed with the Congress. Also, these maps and legal descriptions will be made available for public inspection in the regional and field offices in Alaska. It is anticipated that this task can be completed with the requested funding.

The funding and personnel requested for FY 1981 will enable the Fish and Wildlife Service, in conjunction with the NPS, BLM, USFS and USGS to:

- compile an official boundary map for each unit;
- write legal descriptions for each refuge;
- publish these maps and legal descriptions in the Federal Register; and
- print multiple copies of the official maps for distribution to public and private entities and individuals.

This effort must be coordinated with the five agencies involved to accommodate common boundaries and otherwise standardize the products.

The funding and positions requested are based on experience with previous similar tasks such as the FLPMA 204(e) emergency withdrawals of November 16, 1978, the National Monument Proclamations of December 1, 1978, and the FLPMA 204(c) refuge withdrawals of Febrary 11, 1980. The current cost of Federal Register publication, as well as the cost of printing a supply of maps by USGS for individual agency use by USGS, is reflected in these estimates.

Object Classification Distribution

The object class detail by program for the $150,000 increase is as follows:

Object Class	Estimated Funding
Positions other than permanent	$ 15,000
Personnel benefits	1,600
Printing and reproduction	133,400
Total obligations	$150,000

Mammals and Non-Migratory Birds Program

Service Responsibility for Assuring Preference for Subsistence Uses on Alaska Refuges ($325,000, 6 positions) - Title VIII of Public Law 96-487, the Alaska National Interest Lands Conservation Act, establishes a statutory policy of preference for the taking of fish and wildlife and other renewable resources on federal lands in Alaska for nonwasteful subsistence use. Subsistence use has preference over all other consumptive uses of these resources. The Secretary is authorized to enter into cooperative agreements with the State, other federal agencies, native organizations and other persons or organizations in order to carry out the purposes of this title. Further, in providing for subsistence preference, the Secretary is to permit, under reasonable regulations, the use of snowmobiles, motorboats and other means of transportation traditionally used by local rural residents for access to subsistence resources. The Act also mandates that no land use decisions, including leases, permits or other use of occupancy shall be effected until proper notice is given in the local area affected by the decision and reasonable steps are taken to minimize adverse impacts on subsistence uses and resources. The title also recognizes the Secretary's authority to designate areas where and periods when no taking of fish and wildlife will be permitted on federal lands for reasons of public safety, administrative purposes, or to assure continued viability of a particular fish or wildlife population.

Refuges in Alaska will be heavily utilized for subsistence purposes. As Alaska's natives ended their nomadic existence early in this century, they settled where substantial fish and wildlife resources, virtually all of their diet at that time, were concentrated. It is these same areas, because of the fish and wildlife resources, that are now national wildlife refuges. Residents of over 145 villages, more than 35,000 people, located within or adjacent to the 16 refuges established by the Act have traditionally used refuge habitat for subsistence purposes and are expected to continue to do so. The number of villages and people associated with each refuge, the principal species they subsist on, and certain major resource concerns associated with subsistence use are listed in Table 1.

Several instances of conflict between sport and subsistence hunters involving large mammals have already occurred in Alaska and such conflicts can be expected to increase. Due to the change in policy embodied in the Act, subsistence uses have preference over sport uses. As a consequence, the Service, local residents the Alaska Department of Fish and Game and sport hunters could be involved in an increasing number of adversary situations.

To date, there are no known problems related to subsistence use of fishery resources, although such use has not been studied extensively. However, given the rapid population growth in rural Alaska, the substantial dependence on fish protein in the subsistence diet (up to 90 percent is fish), and the massive commercial use of the same salmon stocks, it is essential to better understand the impact on this subsistence resource. For instance, if there were unrecognized problems, escapement rates from the offshore commercial fisheries would have to be increased dramatically to accommodate subsistence use under the preference provisions of the Act. Particularly in years of limited salmon runs, this could possibly result in direct conflicts between subsistence and commercial users of this finite resource. Such competition for a finite resource would be equally as difficult to resolve as those that have arisen in the Puget Sound area and on the Klamath River in California in recent years.

Section 807 provides specific judicial procedures to assure that those individuals and organizations affected by refuge subsistence preference decisions can seek relief of what they consider to be undesirable or unjust decisions. This section also has provisions whereby those who sue the Service over subsistence decisions can be reimbursed for court costs and "reasonable" attorney's fees if they prevail. This provision conceivably could stimulate law suits and lead to congestion of the Federal courts of Alaska. Of greater concern, a flood of lawsuits against the Service will result in predominantly adverse rather than cooperative, relationships with subsistence users on Alaskan refuges. Therefore, good communications and understanding with local residents will be a major deterrent to court actions and abuse of subsistence preference. There is no way to completely eliminate complaints or

U.S. FISH AND WILDLIFE SERVICE
Alaska National Interest Lands Conservation Act
Table 1 - Subsistence Use On National Wildlife Refuges

Refuge	Villages1,2/ Affected	People 1,2/ Involved	Partial Listing of Resources/Species Involved	Concerns
New Refuges				
Alaska Peninsula	10	1,500	Brown bear, caribou, moose, wolf, ducks, geese, shorebirds, salmon	
Becharof	4	830	Brown bear, caribou, moose, waterfowl, salmon	
Innoko	8	1,600	Waterfowl, caribou, moose, cranes, swans, salmon, grizzlies, sheefish and furbearers	Subsistence & sport hunting overharvesting
Kanuti	4	414	Waterfowl, caribou, moose, swans, salmon, furbearers	
Koyukuk	4	1,440	Waterfowl, moose, swans, salmon, other fish	Major recent conflict between natives & sportsmen
Nowitna	3	620	Waterfowl, swans, salmon, furbearers	
Selawik	5	1,800	Caribou, migratory birds, waterfowl, shellfish, salmon, furbearers	Heavy subsistence use, impact uncertain
Tetlin	8	775	Caribou, waterfowl, fish, furbearers, moose	
Yukon Flats	10	2,000	Waterfowl, moose, sheep, swans, salmon, foodfish	Protein demand will double in ten years
Subtotals, New Refuges	56	10,979		
Refuge Additions				
Alaska Maritime	15	1/	Marine sea birds, marine mammals, seals	Egging
Arctic	1	300	Caribou, migratory birds, sheep, grayling, sea birds, trout, whitefish, furbearers, muskox, polar bear, wolves and wolverine	
Izembek	1	250	Migratory waterfowl, brown bear	
Kenai	10 3/	10,000 3/	Salmon, whitefish, mountain goats, bears, sheep migratory birds	
Kodiak	2/4/	2/	Brown bear, salmon	Sport hunting
Togiak	6	1,300	Salmon, migratory birds, sea birds, marine mammals, moose, caribou, bear	Over harvest by subsistence and sport hunters
Yukon Delta	56	13,000	Waterfowl, swans, shorebirds, other migratory birds, caribou, marine mammals	Human population growth second only to Anchorage; Over harvest of white-fronted and emperor geese and black brant
Subtotal, Refuge Additions	89	24,850		
TOTALS	145	35,829		

1/ Predominatly natives, except Kenai and Izembek
2/ Data are not available or are insufficent for presentation
3/ Crude estimate
4/ Village selections under ANCSA still in dispute

allegations of inadequate subsistence preference, but the principal goals of Service actions under these sections will be to minimize the number of complaints. The Service will also work to inform the local residents of biological factors and habitat needs of the fish and wildlife they depend upon so that overuse of or stress on populations can be avoided or minimized.

Subsistence priority provisions of the Act are a major management concern of the Service due to the likelihood of conflict and the development of inimical relationships if not skillfully implemented. A subsistence program cannot be effectively implemented on national wildlife refuges in Alaska simply by fiat and a massive law enforcement effort. Rather, it must be implemented in a cooperative mode with sufficient personnel resources to deal directly with users on a timely basis. Any other approach will very rapidly disintegrate into an adversarial situation which will be totally unworkable in a very short time. As administrative difficulties multiply, the situation could deteriorate to the point where there is no assurance that the nationally significant Alaskan fish and wildlife resources and their habitats for which the Service is now responsible can be adequately protected.

In FY 1981, funding requested under the Mammals and Non-Migratory Birds Program will be devoted to identifying the existing distribution of subsistence harvest on refuges where the heaviest subsistence use is known to occur (e.g., Yukon Flats, Togiak, Alaska Peninsula). Other refuges will be studied in subsequent years. Major emphasis will be meeting with residents to discuss their subsistence needs and ways in which refuge management and policies affect the fish and wildlife resources. These informal meetings/discussions will establish the framework for all subsistence management on national wildlife refuges and facilitate such activities, discussed below, as cooperative agreements, access provisions, and regulations. A careful selection of refuge personnel will be made to ensure that individuals will deal most effectively with the principal groups of subsistence users on these refuges. Without these preliminary informal discussions, the Service will likely be viewed by residents as restrictive or autocratic and management will be far more difficult.

The Service will continue to develop agreements with the State, other Federal, Native and other private land owners adjacent to refuges with the heaviest subsistence use. The agreements will serve to implement mutual decisions and responsibilities for subsistence uses on refuges. They will help minimize the possibilities for misunderstandings and abuses of the subsistence program by establishing formal avenues for discussion and cooperation.

The Service will begin analyses of lands being considered for exchange or other change in status in order to initiate the necessary procedures required prior to such changes. Regarding access to refuges for subsistence purposes, the Service will issue permits and monitor compliance with access regulations.

The funds and positions requested will also be used to continue the Service's regulations formulation process. Costs will vary with each refuge based on the need to protect species on that refuge. Central to the Service's concept of subsistence management is public involvement including meetings with affected local residents to solicit views and reactions and assess impacts of proposed regulations before they are implemented. This procedure will help to minimize ill will among subsistence users, and it may also serve to soften such impacts by explaining the purposes in advance and obtaining acceptance of their necessity.

Section 816(b) authorized the Secretary to designate areas where, and establish periods when, no taking of fish and wildlife will be permitted on public lands for reasons of public safety, administration, or to assure the continued viability of a particular fish and wildlife population. After consultation with the State and adequate notice and public hearing, the Secretary may temporarily close an area of public land to subsistence uses. The section also includes provisions to effect emergency closures. Following is a list of possible actions that may have to be taken to implement the requirements of this one section of the Act.

- o Identify areas of concern.
- o Gather data to determine need for closures (closure is the last resort).
- o Hold public hearings, prepare necessary notice and coordinate efforts with the State.
- o Prepare necessary closure orders. (last resort)
- o Follow-up to determine when areas can be re-opened to subsistence and other uses.

The Service will exercise the actual closure provisions only in areas and at times when there is no other viable alternative. However, some species and areas where there is potential for problems can already be identified (e.g. moose). If such concerns are not examined and determinations on the need for closure made, the Department will be in serious negligence of its responsibility and liable for court action.

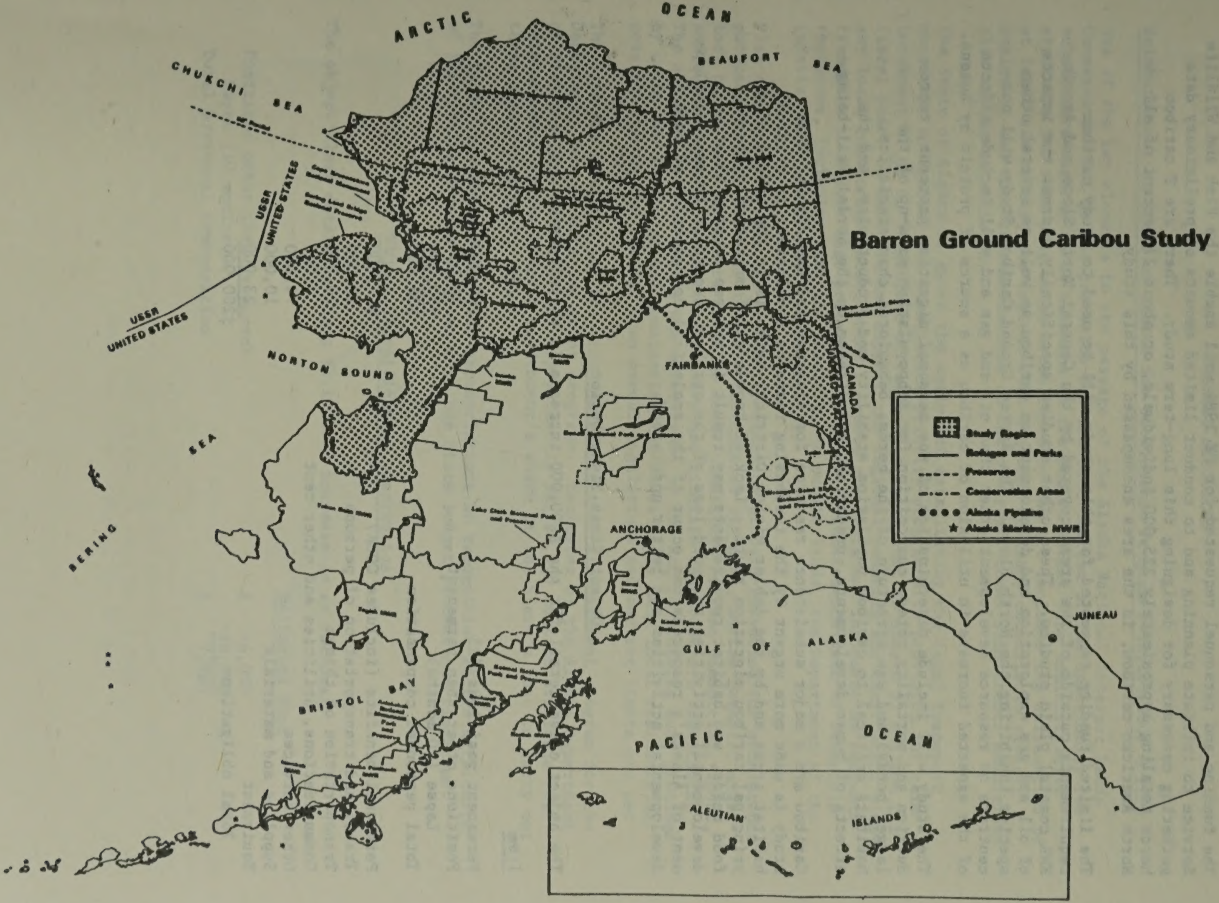
Additional funding for management of subsistence uses on refuges is being requested in the FY 1982 budget for the Migratory Bird and Fishery Resources Programs as well as in this program.

Object Class Distribution

The object class detail for the $325,000 increase is as follows:

Item	$
Permanent positions (6)	$210,000
Positions other than permanent	127,000
Lapse (10 months)	-175,000
Total personnel compensation	$162,000
Personnel benefits (includes COLA)	$ 52,000
Travel and transportation of persons	10,000
Other services	71,000
Supplies and materials	10,000
Equipment	20,000
Total obligations	$325,000

Barren Ground Caribou Study ($200,000, 3 postions) - Section 306 (b) ANILCA directs the Department of the Interior to cooperate with the State of Alaska in conducting an ecological study of the barren ground caribou herds north of the Yukon River as well as herds known to migrate between the United States and Canada. As indicated by the following map, the study area includes about half of Alaska.



Barren Ground Caribou Study

The funding and personnel requested for FY 1981 will enable the Fish and Wildlife Service to initiate planning and to conduct limited amounts of preliminary data gathering necessary for designing this long-term study. There are 8 caribou herds totaling approximately 225,000 individuals, or about 27 percent of all North American caribou, in the area encompassed by this study.

The limited funding requested for this study will be used to study caribou requirements outside of the areas covered by the Central North Slope and Arctic NWR coastal plain studies. These other studies specifically address the impacts of oil and gas exploration and development on caribou as well as several other species inhabiting the North Slope. The Barren Ground Caribou Study will concentrate on resource development other than oil and gas and will include effects of the expected increase in utilizion of caribou as a source of protein by humans.

The study will include determination of the seasonal migration patterns, reproduction and mortality rates, composition (or subpopulation make-up of the larger herds) and age structure of the herds, behavioral characteristics, habitats critical to caribou population stability and productivity, and the effects of human developments, predation, and disease on the herds' well-being.

Caribou are a major subsistence resource for Alaskans and Canadians. This study is made more urgent by the increasing resource development in critical habitat areas and by the Ambler Mining District, which is in the middle of a principal caribou migration route. Lack of knowledge of migratory patterns, food needs, and habitat requirements may result in extreme caution about developmental activities to avoid loss of the caribou resource. Prudent development of Alaska's resources can occur if the ecological consequences of such developmental activities are better understood.

Object Class Distribution

The object class detail for the $200,000 increase is as follows:

Item	$
Permanent positions (2)	$60,000
Positions other than permanent	26,000
Lapse (10 months)	-50,000
Total personnel compensation	$36,000
Personnel benefits (includes COLA)	$17,000
Travel and transportation of persons	18,000
Transportation of things	20,000
Communications, utilities and other rent	2,000
Other services	74,000
Supplies and materials	10,000
Equipment	23,000
Total obligations	$200,000

FISHERY RESOURCES

Reimbursement to State of Alaska for Subsistence Program (+$2,100,000/ 0 FTP)

One of the key elements in the passage of the Alaska National Interest Lands Conservation Act is the provision for the continuation of the opportunity for subsistence uses by rural Alaskans on the public lands. The administrative structure for this program as established by the Act includes the delineation of at least six subsistence regions with regional advisory councils to review, evaluate, and make recommendations on the program. Local subsistence committees also may be established.

The State of Alaska is given the option of establishing the legal framework necessary to conduct the subsistence priority program with provision for reimbursement of up to 50 percent of reasonable costs, not to exceed $5 million per fiscal year, to maintain and support the regional councils and their staff plus any local committees established. Should the State not implement an adequate framework to assure that preference is given to subsistence uses of renewable resources, including fish and wildlife, on public lands, the Department of the Interior must assume that responsibility.

Fish constitute by far the greatest portion of protein harvested for subsistence purposes in most areas of Alaska. Terrestrial big game, marine mammals, migratory birds, and furbearers are also used. Conflicts between commercial, sport, and subsistence users of these fishery and wildlife resources are inevitable. The advisory council system was established by the Act to minimize such problems by using the knowledge and considering the views of as many local residents as possible during the periods when annual regulations and harvest limits are set.

The Fish and Wildlife Service will administer the reimbursement program for the Department through existing grant programs. Estimates by the Alaska Department of Fish and Game indicate that approximately $2,100,000 must be available for reimbursement of the Federal government's share of the State's cost to carry out these activities in FY 1981.

The funds requested are no-year appropriations in recognition of the difficulty of interfacing Federal programs with the State budget process and timeframe.

Object Classification Description

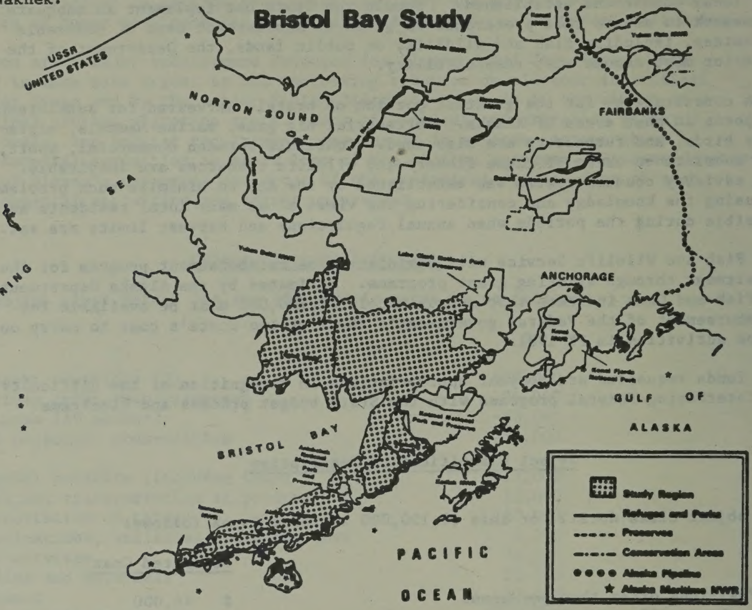
The object class detail for this $2,100,000 increase is as follows:

	Estimated Cost
Positions other than permanent	$ 46,000
Lapse (10 months)	-38,200
Total personnel compensation	$ 7,800

Personnel benefits (includes COLA and some moving costs)	$ 8,200
Travel and transportation of persons	30,000
Transportation of things	15,000
Other services	10,000
Grants, subsidies, and contributions	2,029,000
Total obligations	$2,100,000

Bristol Bay, Alaska, Study (+$750,000/ 4 FTP)

The Bristol Bay Cooperative Region established in P.L. 96-487 encompasses approximately 25 million acres of State, Native and Federal lands comprising all drainages flowing into Bristol Bay except limited areas within the National Park System (see following map). Included are major rivers systems such as the Nushagak, Kvichak, Alagnak, and Naknek, and significant lakes such as Iliamna, Becharof and Naknek.



The Act directs the Department to complete a study of these lands, their resources and economic development requirements, and to prepare a comprehensive and systematic cooperative management plan by December 1983. The State of Alaska may elect to participate in the study and development of the plan, which will address such diverse concerns as transportation systems and corridors, land uses, economic development and potential land exchanges.

The Bristol Bay area produces 80 percent of the world's red salmon along with other fishery resources and is considered to be one of the most productive fishery areas in the world. Protection of these fishery resources and their habitats, as well as the associated wildlife species, is a major thrust of the legislation and the planning effort.

In Fiscal Year 1981, the following tasks and initiatives will be implemented to insure completion of the report to Congress in Fiscal Year 1983:

- o Establish, through coordination with other Federal agencies (NPS, BLM, NMFS), other FWS Divisions, and the State of Alaska, the scope and direction of the overall study;
- o Assemble equipment and manpower necessary to carry out FWS responsibilities for fisheries, wildlife, and habitat;
- o Contract with agencies for satellite imagery, aerial photography, and/or other functions necessary to compile resource information within the time frame established by the Act;
- o Study anadromous and non-anadromous fisheries to develop run-size prediction models, estimate and evaluate commercial and subsistence harvest, determine requirements for escapement of adults, and survival of young through both the freshwater and ocean phase.

Object Classification Description

The object class detail for the $750,000 increase is as follows:

			Estimated Cost
Permanent personnel			
(Position Title)	(Grade)	(Numbers)	
Biologist	GS-12	2	$ 56,000
Biologist	GS-11	2	47,000
Positions other than permanent			71,700
Lapse (10 months)			-145,000
Total personnel compensation			$ 29,700
Personnel benefits (includes COLA)			$ 30,400
Travel and transportation of persons			60,000
Transportation of things			35,000
Rent, communications, and utilities			28,000
Other services			380,000
Supplies and materials			60,000
Equipment			126,900
Total obligations			$750,000

ADMINISTRATION AND RELATED SUPPORT SERVICES

Administrative Support and Common Program Services ($102,000; 4 pos.) (non-add) An increase is necessary in FY 1981 to establish additional administrative support in the Anchorage Regional Office and to pay for common program services which will increase as the Alaska National Interest Lands Conservation Act is implemented. Two of the FTPs will be added to the personnel management office and two to the contracting and general services office. The additional personnel positions are required to plan and execute the complex process of establishing new positions for approximately 300 full and part-time and temporary and seasonal employees who will be added to the Alaska region, to recruit and hire the new personnel and to provide routine and continuing personnel services such as payroll coordination, records management, position management, counseling and training. The two additional contracting and general services positions are required to handle increased demands for procurements, contract administration, property, vehicle and quarters management and supply and logistics support engendered by the inflow of personnel and funds into the Alaska region to support the establishment and expansion of 16 national wildlife refuges and to discharge other responsibilities required under the Act.

Regional office common program costs are anticipated to increase as implementation of the Act begins. Commercial telephone installation and service costs will rise as will the costs of teletype/facsimile service, printing and reproduction, technical library and health services and office supplies, materials, and equipment.

A breakdown of costs by object class follows. Costs are based upon the assumption that the administrative support positions will be filled by June 1, 1981, and that common program costs will increase from that point.

Object Class Distribution

Permanent positions	$ 82,142
Positions other than permanent	8,177
Lapse (8 months)	-54,761
Total personnel compensation	$ 35,558
Personnel benefits (includes COLA)	$ 10,942
Travel and transportation of persons	8,000
Transportation of things	40,000
Communications, utilities, and rent	2,000
Printing and reproduction	500
Other services	1,500
Supplies and materials	1,500
Equipment	2,000
Total obligations	$102,000

U.S. FISH AND WILDLIFE SERVICE
Alaska National Interest Lands Conservation Act
Table 1 - Subsistence Use On National Wildlife Refuges

Refuge	Villages 1,2/ Affected	People 1,2/ Involved	Partial Listing of Resources/Species Involved	Concerns
New Refuges				
Alaska Peninsula	10	1,500	Brown bear, caribou, moose, wolf, ducks, geese, shorebirds, salmon	
Becharof	4	830	Brown bear, caribou, moose, waterfowl, salmon	
Innoko	8	1,600	Waterfowl, caribou, moose, cranes, swans, salmon, grizzlies, sheefish and furbearers	Subsistence & sport hunting overharvesting
Kanuti	4	414	Waterfowl, caribou, moose, swans, salmon, furbearers	
Koyukuk	4	1,440	Waterfowl, moose, swans, salmon, other fish	Major recent conflict between natives & sportsmen
Nowitna	3	620	Waterfowl, swans, salmon, furbearers	
Selawik	5	1,800	Caribou, migratory birds, waterfowl, shellfish, salmon, furbearers	Heavy subsistence use, impact uncertain
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Yukon Flats	10	2,000	Waterfowl, moose, sheep, swans, salmon, foodfish	Protein demand will double in ten years
Subtotals, New Refuges	56	10,979		
Refuge Additions				
Alaska Maritime	15	1/	Marine sea birds, marine mammals, seals	Egging
Arctic	1	300	Caribou, migratory birds, sheep, grayling, sea birds, trout, whitefish, furbearers, muskox, polar bear, wolves and wolverine	
Izembek	1	250	Migratory waterfowl, brown bear	
Kenai	10 3/	10,000 3/	Salmon, whitefish, mountain goats, bears, sheep migratory birds	
Kodiak	2/4/	2/	Brown bear, salmon	Sport hunting
Togiak	6	1,300	Salmon, migratory birds, sea birds, marine mammals, moose, caribou, bear	Over harvest by subsistence and sport hunters
Yukon Delta	56	13,000	Waterfowl, swans, shorebirds, other migratory birds, caribou, marine mammals	Human population growth second only to Anchorage; Over harvest of white-fronted and emperor geese and black brant
Subtotal, Refuge Additions	89	24,850		
TOTALS	145	35,829		

1/ Predominatly natives, except Kenai and Izembek
2/ Data are not available or are insufficent for presentation
3/ Crude estimate
4/ Village selections under ANCSA still in dispute

BUDGET REQUEST OVERVIEW

Mr. **Yates**. Tell us the state of the Fish and Wildlife Service. Is it good, bad, or indifferent? Does the budget the committee has before it provide enough funding to take care of the Service or does it provide too much money to take care of the Service?

Mr. **Hester**. Mr. Chairman, I suspect there are benefits and detriments relative to the changing times and the changing budget scene. I would not in any way indicate that we have enough money to carry out what I see as our responsibilities, those given to us by Congress.

Mr. **Yates**. We do not have enough money in the budget which is before the committee at the present time or the budget which the committee is supposed to get on March 10?

Mr. **Hester**. I feel we do not have enough money in either of the budgets to carry out all of the responsibilities which Congress has given us.

Mr. **Yates**. Do you have any inclination at all as to what the budget we are to see on March 10 has in it?

Mr. **Hester**. Yes, I do.

Mr. **Yates**. Are you allowed to tell us?

Mr. **Hester**. In all honesty, Mr. Chairman, I will say we do not have a final budget. It has been an iterative process. We have been given information relative to the 1982 process, the revised budget. We have been able to offer some suggestions and modifications.

However, it has been a changing situation. Even as recently as this past weekend there have been additional changes in the budget.

Mr. **Yates**. Sideways?

Mr. **Hester**. It has affected all of us.

Mr. **Yates**. That puts you in a rather unenviable position, does it not, not knowing how much money you have available for the next fiscal year?

Mr. **Hester**. It is a time of important change. I will be glad to answer your questions as best I can from the insight I have relative to the changes which will be occurring.

Mr. **Yates**. We will try to help your insight. Proceed.

Mr. **Hester**. There have been some important changes over the past year, and they are reflected in our budget. One of them is the Alaska lands legislation, the Alaska National Interest Lands Conservation Act, which added nine new and seven enlarged and consolidated refuges to our holdings, and directed specific studies of fish and wildlife resources in Alaska, and also established subsistence use of renewable resources as the priority consumptive use on public lands.

In Alaska one of the things we will be doing is conducting some basic inventories. We will also be understanding the ecology of the areas which are now our responsibility.

With reference to construction, we have funds shown for the development and rehabilitation of facilities of the National Wildlife refuge system, including roads, buildings, water control structures, and public use facilities.

We anticipate preserving about 21,400 acres of wetlands in 1982 from receipts from the sale of migratory bird hunting and conservation stamps. We have not requested an advance in the wetlands loan fund.

Mr. YATES. You have an increase of $3 million. $225,566,000 is the amount of your budget for 1981. Are you threatened with rescissions of any part of that budget?

Mr. HESTER. There may be rescissions related to some construction items and possibly some of the things related to the Land and Water Conservation fund.

Mr. YATES. That has nothing to do with the amount I just cited, the $225 million figure. That is another item. That is merely resource management. Are you threatened with rescissions of any of the items in resource management?

Mr. HESTER. I am not aware of any threatened rescissions relative to resource management. The only possibility I see there is one of modification in supplemental requests, but that is not in the figure you have just given.

Mr. YATES. The supplemental request, including the pay supplemental, would raise that figure for 1981 to $241,487,000. Is that right?

Mr. HESTER. I think that is correct.

Mr. YATES. Now you have a budget request for 1982 of $254,057,000. That would be a significant increase over the current year. Is that correct?

Mr. HESTER. It would be an increase.

Mr. YATES. You will not accept the word "significant."

As I remember your reply to my statement when I asked you about the state of the Fish and Wildlife budget, you said considering the budget constraints it is adequate for the purpose. Is my recollection correct?

Mr. HESTER. That is a correct recollection.

Mr. YATES. What will the budget restraints do to your condition? What will you not be doing that you should be doing?

Mr. HESTER. Mr. Chairman, before I answer it, am I correct in understanding you to say as compared to the 1982 budget as submitted by President Carter or the revisions of that 1982 budget as we anticipate their being submitted in another week or so? Is the latter the comparison you want me to make?

REQUESTS OF OMB AND DEPARTMENT

Mr. YATES. You asked OMB for less than you finally received. You asked the Department at the start of the budget process for $250.4 million; is that correct?

Mr. HESTER. That is correct.

Mr. YATES. The request which went to OMB was $255.1.

Mr. HESTER. That is correct.

Mr. YATES. Your request of Congress was for $264 million.

Mr. HESTER. That is right.

Mr. YATES. This request included the pay increase.

Mr. HESTER. That is right.

Mr. YATES. Will you be requested by the Department to cut your request in any respect?

Mr. HESTER. There were some adjustments. As the budget went from OMB to Congress, there was a reduction in the National Wildlife Refuge Fund of $11.5 million.

Mr. YATES. Go ahead.

Mr. HESTER. There was also a reduction of $4.4 million between the time it went from the Department to OMB. That was in the Migratory Bird Conservation Act, advance appropriation.

Mr. YATES. You received rather enviable treatment from OMB. They did not cut you from the Department figure; is that right?

Mr. HESTER. The request to Congress was about $3.3 million less than the request to OMB.

Mr. YATES. Your request to OMB was—

Mr. HESTER. One difference. I am considering the entire budget, not just the resource management items.

Mr. YATES. Let us stick with resource management for a figure so we can keep this straight.

Mr. HESTER. All right, sir.

Mr. YATES. OMB was more generous to you than is customary. Is that right?

Mr. HESTER. I would say that is correct.

Mr. YATES. They gave you more money than you had asked the Department for, $5 million more.

Mr. HESTER. That is correct.

Mr. YATES. As a matter of fact, the Department raised you $5 million.

Mr. HESTER. Mr. Chairman, I might mention that as the budget progressed through these steps there were additional things taken into account. One was the pay raise. A second one was some of the Alaska responsibilities.

Mr. YATES. All right. In view of that history, would you not say that your budget is a bare bones budget?

Ordinarily when you go to the Department you go with a figure which the Department usually cuts by the time you go to OMB. That was not true in this case, was it?

Mr. HESTER. It depends on the framework within which the budget is developed.

Mr. YATES. Are you familiar with the framework with which the budget was developed? I know Mr. Greenwalt would have had the responsibility. How long have you been Acting Director?

Mr. HESTER. About five or six weeks.

Mr. YATES. Are you familiar with the whole budget history?

Mr. HESTER. I have a general familiarity with it.

Mr. YATES. Was the budget for 1981 which went to the Department from the Director a bare bones budget?

Mr. HESTER. Yes, it was.

Mr. YATES. Can that budget be cut and still permit you to carry on the work of the Department as you think it should be carried out?

Mr. HESTER. Mr. Chairman, I think we can carry on our responsibilities at any of a number of levels. Obviously, we have to manage within the resources we have. I would say this was adequate to carry out those responsibilities. I say "adequate" with some caution, what one person might think is adequate another person may not.

LOXAHATCHEE NWR

Mr. **Yates**. Let's take Loxahatchee. I have gone to Loxahatchee for the last three or four years. I remember when I first went to Loxahatchee there were a number of constraints. I believe Mr. Martin was the refuge manager.

Mr. **Hester**. That is right.

Mr. **Yates**. Mr. Martin was very concerned. One had to do with the problem of water hyacinths in his canal. They were so thick you could almost walk on them. They were really preventing adequate management of that resource.

When I was there last year the water hyacinths had been taken care of but there were other constraints which were causing some problems.

He was also concerned with the fact he had so much acreage to patrol it was almost impossible with the number of people he had on hand. By the time I visited the refuge last year he had gone. Is it Mr. McIntosh who is the Director there now?

Mr. **Hester**. He was Acting Director.

Mr. **Yates**. They were building a visitors center when I was last there.

What was happening was that the water hyacinths, which is only one minor example of the kind of work which has to be done here, had been cleaned out pretty well but were growing back. Mr. McIntosh was concerned with the number of people he had to control at the refuge. How many does he have there; do you know?

Mr. **Hester**. Eight.

Mr. **Yates**. How many square miles or acres does Loxahatchee have?

Mr. **Myshak**. Under leasing agreement and purchase, 145,635 acres.

Mr. **Yates**. Is it adequate to patrol and care for that place with eight people?

Mr. **Hester**. It is done with difficulty, sir.

Mr. **Yates**. When it is done with difficulty, does that mean it is not done?

Mr. **Hester**. I think it is done in the best way we can do it with eight people.

REFUGE STAFFING REQUIREMENTS

Mr. **Yates**. How about your other refuges? Are they adequately staffed with personnel?

Mr. **Hester**. I think we have had some significant improvements over the last few years with reference to the bicentennial lands program.

Mr. **Yates**. You certainly have had improvements, mostly in light of consideration of this committee as to your needs.

Mr. **Hester**. That is right.

Mr. **Yates**. We have gone over your budget to see you were adequately taken care of. You are at a fairly decent level of minimum staff for most of your refuges, are you not?

Mr. **Hester**. That is correct.

Mr. **Yates**. Are there any refuges which are not staffed as well as they should be at the present time?

Mr. Hester. Yes, sir, including new refuge areas we have in Alaska. We now have a little over 1,000 people in our refuge operation, and it would take several hundred more than that to staff them on an optimum basis.

Mr. Yates. When you say "optimum" you mean "minimum"? Are they staffed on a minimum basis?

Mr. Hester. They are now staffed on a minimum basis.

ALASKA REFUGES

Mr. Yates. How many people do you have operating in Alaska? First of all, how many refuges do you have in Alaska?

Mr. Hester. We have a total of 16 refuges in Alaska, the new ones and some consolidation of old ones.

Mr. Yates. According to the record the Becharof wildlife refuge has two people taking care of it. Do you have anyone there now taking care of Becharof?

Mr. Hester. If you would permit me, Mr. Chairman, Mr. Schreiner, our Regional Director for Alaska, is here with us today.

Mr. Yates. Would you ask him to come up, please? Tell us about the refuges in Alaska. You have no one at Becharof?

Mr. Schreiner. That is right.

Mr. Yates. You have a request in for two?

Mr. Schreiner. These are people to begin the operation.

Mr. Yates. How big is Becharof?

Mr. Schreiner. Approximately one and a half million acres.

Mr. Yates. Two people are taking care of a million and a half acres?

Mr. Schreiner. We have some bigger ones which have nobody at all on them.

Mr. Yates. Why did you put in a request for two, then?

Mr. Schreiner. A number of reasons. We have 16 refuges now totaling 76 million acres. There are approximately 54 million new acres as a result of the Alaska Lands Act and 22 million acres we already administer. We wanted to start up minimally because it is very difficult to get that many new people on board all at one time.

Mr. Yates. That is understandable.

Mr. Schreiner. Besides, Mr. Chairman, quite frankly, a refuge in Alaska probably will not have the same kind of intensive management that they do on the lower 48. This probably is neither desired nor needed.

Mr. Yates. Do you have to worry about poaching in Alaska. Do you have to worry about protection?

Mr. Schreiner. Yes.

Mr. Yates. How do you take care of that?

Mr. Schreiner. Most of the refuges now, a large percentage of the new ones are in the interior. Hunting, whether legal or illegal, or whether it is for subsistence purposes by natives, is done largely by airplane and to a high degree by motor boat. In the wintertime it is done by sled dog, snow machines, and those kinds of means. It is a very vast and remote type of area. It is not heavily hunted in most areas, although for a few that is not true. We probably could never have a level of law enforcement which would permit prevention of any illegal activity. That is not practical or possible.

PLANS FOR ALASKA AREAS

Mr. YATES. I should ask you whether or not the Service has a plan for administering all those new areas.

Mr. SCHREINER. Mr. Chairman, the Lands Act calls for the development of comprehensive plans on all 16 of the refuges within seven years. We have initiated that action. We are doing the first plan on a test basis on Kenai Refuge with public participation in the process. We hope to complete all 16 by the end of the seven-year required date, given a reasonable level of resources.

Mr. YATES. Then I suppose it is unfair at this point to require you to administer those lands. How much money do you need for a minimum care of those lands while you are drafting a plan? According to the budget request—you will provide a supplemental request?

Mr. HESTER. A six million dollar supplemental request.

Mr. YATES. You want 64 positions for that purpose. Let me read your budget request [reading]:

> Section 302 of the Alaska National Interest Lands Conservation Act establishes nine new units of the National Wildlife Refuge System totaling 22.3 million acres which existed prior to December 1, 1978, into seven units, enlarges them by 27.1 million acres for a total area of 49.4 million acres and, in some cases, changes their names. The Act also cancels the national monument designations and refuge withdrawals of December 1, 1978, and February 11, 1980, respectively. These 16 refuges totaling 76 million acres and their fish and wildlife resources are described following this overview discussion and their locations are displayed on the accompanying map. Section 304 establishes policies and requirements under which these refuges will be administered.

You will take seven years for that purpose. In the meantime how many people do you want? You want 64 positions?

Mr. HESTER. Yes, sir.

Mr. YATES. $1,800,000?

Mr. HESTER. Yes.

Mr. YATES. That is for putting the people on them and for administering them while you prepare the plan. What is the other $4.5 or $5 million for?

Mr. HESTER. Carrying out various studies mandated by the Act.

STUDIES IN ALASKA

Mr. YATES. Will you list the studies for the record? How many are there?

Mr. HESTER. Four.

Mr. YATES. Read them.

Mr. HESTER. Arctic National Wildlife Refuge, Coastal Plains, Barren Ground Caribou, Central North Slope study and Bristol Bay.

We also have a reimbursement for a State Subsistence Program of $2.1 million.

Mr. YATES. What is a State Subsistence Program?

Mr. HESTER. A no-year grant to the States relative to the subsistence issue.

Mr. YATES. What do you mean by a subsistence issue?

Mr. HESTER. It recognizes the fact that people living in Alaska depend on fish and wildlife for their food, in large part. Defining this and working out details as to what subsistence uses might be made of these resources is one of the things that must be done.

Mr. YATES. When will you complete that study?

Mr. SCHREINER. The actual study on subsistence is part of a number of other studies. However, I believe we are required to have a report to Congress within three or five years. Without checking the bill I am not certain.

Mr. YATES. That is something you should decide fairly quickly, then.

Mr. HESTER. That is correct.

Mr. YATES. That takes care of Alaska's minimum needs. It is still too early to discuss that really until your studies are completed and you come in with a budget to take care of the Alaska needs.

Mr. HESTER. We have responsibilities during the interim.

Mr. YATES. I know you have. I was getting to that. As I understand your responsibilities, how many people are you requesting in the interim to take care of all that land?

Mr. HESTER. 85 new people.

Mr. YATES. For a total of what?

Mr. HESTER. 271 people.

Mr. YATES. How many do you have on board?

Mr. SCHREINER. Approximately 180 full-time permanent.

Mr. HESTER. I might mention that the studies we are referring to would be done during this period. In fact, as you point out, some of them must be started relatively soon. The results should be known before the seven years or so.

Mr. YATES. Who is making those studies?

Mr. HESTER. We are making some and I believe the State of Alaska is making some.

Mr. SCHREINER. Some may be contracted if the funds are available.

Mr. YATES. To whom?

Mr. SCHREINER. To the State in some cases and to other people capable of doing that kind of work.

Mr. YATES. Such as who?

Mr. SCHREINER. There are a number of private contractors who are capable in the wildlife field.

Mr. YATES. Can you give me an example?

Mr. SCHREINER. Not off-hand, Mr. Chairman. I can provide it for the record.

[The information follows:]

ALASKA WILDLIFE CONTRACTORS

Contractors who could do Alaska wildlife study work are:

Names of private consultant groups

(1) Dames and Moore, 800 Cordova Street, Anchorage, AK 99501.
(2) Kawerak, Inc., P.O. Box 1008, Nome, AK 99762.

Individuals

(1) Dr. John Hall, Marine Biologist, Anchorage, AK 99501.
(2) Michael Smith, Land Resource Specialist, 6640 Roundtree Dr., Anchorage, AK 99504.
(3) Dr. Tom Lonner, Research/Media Associates, 1114 W. 8th Avenue, Anchorage, AK 99501.
University of Alaska, Fairbanks, AK 99701.

Mr. HESTER. I would assume there are people at the universities who could make some of those studies.

Mr. SCHREINER. And at least 12 or 15 other private contractors in Alaska.

Mr. YATES. Are the funds made available for that purpose adequate?

Mr. HESTER. As proposed I think they would be adequate.

ALASKA GAS PIPELINE

Mr. YATES. What is your relationship with the pipeline up there? What do you do in connection with environmental studies which have to be undertaken?

Mr. HESTER. During the construction of the pipeline we had a number of responsibilities——

Mr. YATES. Are you talking about the first pipeline or the one proposed?

Mr. HESTER. Perhaps I should clarify. Which pipeline are you referring to?

Mr. YATES. Let's refer to them both. One is completed.

Mr. HESTER. Yes.

Mr. YATES. Now there is one still under discussion with respect to financing and location. Are you doing any work in connection with the second one?

Mr. HESTER. Yes, Mr. Spear can respond.

Mr. YATES. What are you doing?

Mr. SPEAR. We have a group of people in Alaska working with the gas pipeline people. As you know, the Federal Government has appointed a Federal Inspector with a couple hundred people involved. He has the overall responsibility of expediting the permits.

We have just developed in the last few days a memorandum of agreement which specifies our working relationship with him. We will be providing people on detail to him for certain biological work.

We have been working for about the last two years on this. The pipeline goes through Canada as well as Alaska and terminates in the lower 48 in the central part of the country. We have had activity not only in Alaska, then, but in the Dakotas and some of the States around there.

Our work in Alaska concentrates itself in two areas, overall planning types of effort, developing the mapping, and using our geographic information systems which we have developed. The pipeline company and its subcontractors have availed themselves of our capability to analyze not only the biological resources, the wetlands that might be traversed, but also to use this system in conjunction with logistical activities such as roads, and the geographical information system also assists in analyzing methods for crossing streams. I think we have five people involved in Alaska working full-time on the pipeline effort and in the planning studies.

I would say the relationship with the pipeline people is quite good. We have learned a lot from the oil pipeline of a few years back.

Mr. YATES. When will your studies be completed?

Mr. SPEAR. Studies are going along with the development. We are helping to shape the routes and we will be working with them in actual construction, actual on-site activities and providing best methods for crossing streams. Studies will go on as long as construction activities are monitored.

Almost all of this is reimbursed by the pipeline company.

Mr. YATES. The pipeline company still does not know whether it is going ahead, does it?

Mr. SPEAR. No, but it is spending money. It has to get the necessary permits even though they have not arranged the necessary financing.

Mr. YATES. And the Canadians are going ahead with their responsibility?

Mr. SPEAR. Yes, sir.

Mr. YATES. Do you feel any constraints as to the amount of work you are doing? Do you need more people working on that or are you in good shape?

Mr. SPEAR. Mr. Schreiner is closer to it up there.

Mr. SCHREINER. I believe our relationship with the pipeline officer has been quite good and, generally speaking, they are providing the help we need to get the job done.

Mr. SPEAR. The authorized officer in the Department of the Interior, has as his deputy, one of my people on detail and are being funded by the pipeline company, and I would say they rely heavily on our biological expertise.

Mr. YATES. Suppose the March 10 budget cut your people up there. Would that influence completion of the pipeline at all?

Mr. SPEAR. It is hard to say. We might be the tail wagging the dog. Because these are full-time and permanent ceilings we are using, even though they may be paid for by another agency, it might come to the point where we would have to terminate appointments for those types of people. It would certainly not help in employing assistants to the company in getting that expertise.

Mr. YATES. Do you know how much of a budget you will get?

Mr. HESTER. No, we do not.

Mr. YATES. This is like Columbus looking for the New World.

Mr. HESTER. It may be.

Mr. YATES. Let's leave Alaska now. Thank you for your testimony regarding that State.

COPPER RIVER DELTA

Mr. AuCOIN. I have one question which is incidental to the discussion which has taken place. I served on the Merchant Marine Committee in the last Congress when we passed the Alaska bill.

I have never understood the current status of the Copper River Delta. This is an area just teeming with waterfowl, some 20 million shore birds and migratory birds using this area. Currently we manage this area as a wildlife refuge but it is managed under the Forest Service rather than the Fish and Wildlife Service. I have never really understood why this is so other than one agency happens to have it and is jealous about protecting its jurisdiction.

I am wondering whether there is any indication at this early stage within the Administration, or anywhere else downtown, that there might be some kind of transfer of the jurisdiction for the Copper River Delta from the Forest Service to your agency.

Mr. HESTER. I am not aware of any such discussions or negotiations at the Washington level. Mr. Schreiner might have some additional insight relative to Alaska.

Mr. SCHREINER. There are none to my knowledge, Mr. AuCoin. There are no such discussions regarding any change.

Mr. AUCOIN. I don't want to put you on the spot, but regarding the substance of the issue, if an area will be managed as a wildlife refuge does it not really make sense on the merits of the issue itself to have it managed by the agency which manages all the other wildlife refuges in the country?

Mr. HESTER. If that would be the primary function of the land mass, yes.

Mr. AUCOIN. I never have understood this peculiar situation, Mr. Chairman. It is a very critical habitat for an incredibly large number of waterfowl. It is important to the Northwest because many of these birds winter in this area, and they then come to the Northwest. We in the Northwest are critically interested in the disposition of this area.

Before you left Alaska I just wanted to ask that question.

NEW REFUGES

Mr. YATES. We can ask the Forest Service about it later. They have a number of areas they supervise which might properly be within the province of this agency.

That was the reason the Carter administration originally proposed a new Bureau of Natural Resources. In that way they could all work together.

As far as I can make out that issue is now dead.

Let us go to the lower 48 and leave Alaska. What about the new refuges which Congress gave you to supervise? How will they be administered?

Mr. HESTER. We have requested funds in our budget for personnel and for the operation of those refuges.

Mr. YATES. How many are there?

Mr. HESTER. Six new ones.

Mr. YATES. How many personnel do you want to administer them?

Mr. HESTER. I believe there are actually no new personnel requested here. There are funds but no new personnel.

Mr. YATES. You have no personnel now, do you?

Mr. HESTER. Not on the new acreages.

Mr. YATES. Are you going to transfer personnel from existing refuges to take care of them where they are required?

Mr. HESTER. Yes, where they would be required.

Mr. YATES. And those appear on pages 88 and 89 as well as on page 90 of your justifications.

Fox River is 2,000 acres. Mathews Brake is 4,000 acres. Bogue Chitto is 18,500 acres. Bon Secour is 5,900 acres. Banks Lake is 12,848.

In Banks Lake you will put one position, in Bon Secour one position, in Bogue Chitto three positions and $190,000, in Overflow two positions, and in Anahuac with 1,100 acres no positions.

Therefore, all the new ones will pretty much take care of themselves?

Mr. HESTER. Mr. Chairman, as you point out there, some of them do require new positions. Although some require no new positions, we are transferring one or two positions relative to some of those refuge areas.

Mr. YATES. Let's take some of the older ones, or even some of the new positions. Bogue Chitto was just added down in Louisiana. You want three positions to take care of 18,500 acres. You want three permanent employees, an assistant refuge manager, a GS-5 assistant refuge manager, and a GS-5 biological technician, as well as a GS-3 clerk.

Management and protection will preserve the many natural bayous and islands and the hydrological integrity of the area.

How is it possible to do that with two or three people on 18,500 acres? How do you know what is going on in the refuge? How do you know what the condition of the land is? That is only one and I will let you answer that in a moment.

Then let's look at the Fox River in Market County. That is only 641 acres. You are letting the acreage take care of itself.

How do you know the condition of the birds, the reptiles and the amphibians there?

Mathews Brake, 4,000 acres, and you have no positions there. How do you know what is going on? Is that characteristic? Will you let nature take care of itself?

Mr. HESTER. I think there is a certain protection provided when it comes into our ownership. That is, it does not require intensive management.

Mr. YATES. You put a fence around it. You say this belongs to the Federal Government.

Mr. HESTER. Yes, the very fact it belongs to us gives us a certain control over those lands we otherwise would not have.

Mr. YATES. And people who may go on those refuges know it belongs to the Federal Government?

Mr. HESTER. That is right.

Mr. YATES. Even though you have nobody there?

Mr. HESTER. Oftentimes we will use people from other nearby facilities, at least to patrol the area and to know what is going on there. However, we would not be able to do all the types of things you have indicated there.

MATHEWS BRAKE NWR

Mr. YATES. Let's take Mathews Brake. You say overall administration will be through Hillside National Wildlife Refuge. How far away is Hillside?

Mr. MYSHAK. About 40 miles.

Mr. YATES. That is not too far. How many people do you have at Hillside? How big is Hillside? I am looking at the map. It is certainly more than 40 miles.

Is Mathews Brake the same as Mississippi Sandhill? Where is Mathews Brake? It is in a delta area. Hillside is close to Yazoo.

Has anybody ever been in Mississippi? Is there a southern manager here or a regional manager? [No response.]

Mr. YATES. Did OMB clamp up on this, too?

Mr. HESTER. We do not have the answer.

Mr. YATES. How can you tell the committee anything if you don't have the answer? Don't you have somebody who is regional manager for the South?

Mr. HESTER. We do not have a regional director for the South here. We have a couple of people from our refuge operations. Perhaps they can help us.

Mr. MYSHAK. In partial answer to the Chairman's question, I have a map. You can look at the map.

Mr. YATES. We have a map here.

Mr. MYSHAK. You have a bigger one than I have.

Mr. YATES. That is why we are asking the questions. Mathews Brake does not appear on our map. Do you have Mathews Brake on your map?

Mr. MYSHAK. Hillside——

Mr. YATES. We know where that is. That is near Yazoo. Where is Mathews Brake?

Mr. MYSHAK. It has to be very close to Hillside.

Mr. AUCOIN. This fellow here may know.

Mr. YATES. Maybe we can have somebody call the Interior Committee to find out where Mathews Brake is. I would have thought the Service would know where it is.

Mr. MYSHAK. It is in Northeastern Mississippi.

Mr. YATES. I imagine nature will take care of Mathews Brake, will it not?

[No response.]

BOGUE CHITTO AND MISSISSIPPI SANDHILL CRANE NWRS

Mr. YATES. You should send out an explorer to find Mathews Brake.

Will you have three people taking care of Bogue Chitto?

Mr. HESTER. Yes.

Mr. YATES. Bon Secour in Alabama, 5,900 acres. You say administration and management support initially will be from Mississippi Sandhill Crane. How many people do you have at Mississippi Sandhill Crane?

Mr. HESTER. We have two people there, sir.

Mr. YATES. How big is the refuge at Mississippi Sandhill Crane?

Mr. MYSHAK. It has 14,834 acres.

Mr. YATES. How many people do you have administering that area?

Mr. HESTER. Two people.

Mr. YATES. Two people administering 14,900 acres and you propose that those two people will also handle an additional 5,900 acres? I see one other.

Mr. HESTER. That is our proposal.

Mr. YATES. Is that satisfactory?

Mr. HESTER. I would say that is the best we can do under the manpower and dollars we will be provided.

Mr. YATES. That raises a good question. How well can the Service do its job with that lack of personnel? How much of a job does the Service have? If it can do its job with two people you can almost let nature take care of all the refuges, couldn't you? Why have any people?

Mr. HESTER. We sometimes use additional people, in the sense of people who are less than permanent.

Mr. YATES. You have floating groups of people?

Mr. HESTER. We can hire people on a seasonal basis.

Mr. YATES. How many people were hired on a seasonal basis for Mississippi Sandhill Crane?

Mr. HESTER. I don't know. I will supply that for the record. [The information follows:]

SEASONAL POSITIONS AT MISSISSIPPI SANDHILL CRANE NWR

The Assistant Refuge Manager is the only seasonal employee that has been hired at the Mississippi Sandhill Crane National Wildlife Refuge.

Mr. YATES. The impression is that nature is taking its course on these refuges. The most that the Service does is touch it up occasionally.

Mr. HESTER. Mr. Myshak might be able to help you.

Mr. MYSHAK. In some instances relative to the areas we manage, very little manipulation is required to maintain the biological integrity of the area. Therefore, the types of responsibilities we assign to these areas is something you alluded to earlier relative to patrolling.

In this case from the standpoint of patrol relative to hunting and other types of activities, that may be adequate.

In other areas, where there is heavy visitor use or where there is the possibility of intrusion or where there is a requirement to manipulate water levels and things like that, we then need a more intensive type of management, and ultimately it will require more people.

Another thing that perhaps should be brought to the attention of the committee is that in new areas, not much unlike the earlier discussion on Alaska, you are in the initial stages of planning, inventorying and taking census of the population, and so on, which ultimately will lead to a management plan which may require additional personnel, or it may even tell you have adequate personnel already assigned.

REFUGE VISITATION

Mr. YATES. Do you know which of your refuges have the greatest annual number of people visiting? Do you have any record indicating the number of visitors you have at each of your refuges?

Mr. MYSHAK. Wichita Mountain and Okefenokee.

Mr. YATES. How many people visited Wichita Mountain?

Mr. HESTER. I cannot give you a figure for the unit other than on page 131 of our justification you have the composite totals for service lands in the area of environmental education, non-wildlife oriented recreation, trails, and visitors.

Mr. YATES. What does activity hours mean? I am trying to find out the number of visitors. Does that tell me that?

Mr. MYSHAK. Visitors and the number of hours they spend in the area.

Mr. YATES. You say, "Shown below are the number of visitors to refuges over the past 10 years and the estimate for 1981 and 1982." For 1970 you had 17.9 visitors for the entire system.

Mr. HESTER. Yes, we had 17.9 million visitors.

Mr. YATES. In 1980, perhaps the last year for which you had actual figures, you had 26.5 million.

Do you have a breakdown by refuges of that figure?

Mr. MYSHAK. I imagine we can get it. These are compiled from those figures.

Mr. YATES. Who has those figures?

Mr. MYSHAK. We have them in our records in the Division of Refuges.

Mr. YATES. What are your most popular refuges? Is it Wichita? Do you have that figure?

Mr. MYSHAK. Wichita Mountains and Okefenokee.

WICHITA MOUNTAINS NWR

Mr. YATES. How many people do you have taking care of Wichita?

Mr. HESTER. 20 people.

Mr. YATES. How big is Wichita?

Mr. MYSHAK. How large is Wichita?

Mr. YATES. Yes.

Mr. HESTER. 59,000 acres.

Mr. YATES. You have 20 people taking care of it?

Mr. HESTER. That is right. It is one of the older refuges and has a large development of interpretation and recreation opportunities there.

Mr. YATES. Do you have campgrounds there?

Mr. MYSHAK. Yes. Wichita Mountains has camping grounds.

Mr. YATES. That is what I am asking about. How many people will the campgrounds accommodate?

Mr. MYSHAK. I cannot give you that. I will have to supply it.

[The information follows:]

WICHITA MOUNTAINS CAMPGROUND ACCOMMODATIONS

At full capacity, the Wichita Mountains Wildlife Refuge campgrounds will accommodate 550 people. The campground facilities consist of 100 campsites that will hold 4 people each, 3 group sites that will hold 25 people each, and one other group campsite that holds 75 people.

Mr. YATES. How many of your refuges have camping facilities?

Mr. MYSHAK. I don't know the answer to that, either. I will have to provide it for the record.

[The information follows:]

REFUGE CAMPING FACILITIES

The general public is permitted to camp on 88 National Wildlife Refuges. Available facilities range from primitive areas to camping with electrical hook-ups. These areas can be used by special groups and hunters.

Camping allowed only for special groups—special groups such as scouts, environmental education groups, school groups, are allowed to stay overnight on refuges by permit from the refuge manager.

Hunter camping only—only those visitors involved in actual hunting activities are allowed to remain overnight.

Mr. HESTER. It is a small number.

Mr. YATES. A small number?

Mr. MYSHAK. Yes.

Mr. YATES. What was the second figure for Okefenokee? How many people do you have there?

Mr. MYSHAK. 12.

OKEFENOKEE NWR

Mr. **Yates**. How large is Okefenokee?

Mr. **Myshak**. 3,678 acres.

Mr. **Yates**. You have campgrounds at Okefenokee?

Mr. **Hester**. A campground is operated by the State of Georgia on land adjacent to the National Wildlife Refuge.

Mr. **Yates**. You do not administer that?

Mr. **Hester**. We do not.

Mr. **Myshak**. I gave you the acreage in Florida of Okefenokee. There is considerably more than that.

Mr. **Yates**. How much more?

Mr. **Myshak**. An additional 392,220 acres.

Mr. **Yates**. What is the total acreage?

Mr. **Myshak**. You are talking about 396,000 acres for Okefenokee.

Mr. **Yates**. And 12 people take care of it?

Mr. **Myshak**. Yes.

YCC AND OTHER REFUGE EMPLOYMENT

Mr. **AuCoin**. How many YCC personnel does your agency have deployed in the existing wildlife refuges, if any?

Mr. **Hester**. YCC people?

Mr. **AuCoin**. Yes, YCC.

Mr. **Hester**. People enrolled, or staff of the YCC program, or both?

Mr. **AuCoin**. Give me the manpower from the YCC program which will be abolished and which you are now using to help manage the wildlife refuges.

Mr. **Hester**. Mr. Myshak, can you provide that?

Mr. **Myshak**. In the YCC program we currently operate 17 camps with 1,250 youngsters employed.

Mr. **AuCoin**. The committee thinks about the personnel problems managing the wildlife refuges. We need to keep in mind it is not just these positions you are outlining here. If we accept the Administration's request for YCC the personnel quotient will be even more severe.

Mr. **Yates**. I intend to find out how many additional employees they use at Okefenokee.

Do you use any of the YCC people at this area? You have 12 people. How many more do you use?

Mr. **Myshak**. Part-timers?

Mr. **Yates**. Yes.

Mr. **Myshak**. I haven't the slightest idea. That varies with the season.

Mr. **Yates**. On an annual basis how many do you use?

Mr. **Myshak**. I will have to supply it.

[The information follows:]

Additional Positions at Okefenokee NWR

There are 15 full time permanent employees at Okefenokee National Wildlife Refuge, four temporary and two permanent part time employees. In addition, Okefenokee has provided an employment opportunity for YACC and YCC enrollees. The high public use activity at three different points on the refuge provides an excellent opportunity to place YACC employees in essential public use functions serving visitors seven days a week. At this writing there are only 8 YACC's remaining; however, during the past year as many as 15 were on board.

Okefenokee also has two YCC camps which can accommodate 60 enrollees. These camps are activated in June and close in September each year. Due to an expected cutback in the program, only 25 enrollees are being considered for fiscal year 1981. These employees have been engaged in a variety of operational and maintenance functions, e.g. maintenance of canoe trails (60 miles), nature trails, board walks, observation towers and photography blinds. They also participate in surveys and census of wildlife populations and assist with timber management activities. It is unknown at this time if the camps will be authorized for fiscal year 1981.

Mr. YATES. The picture I am trying to get is the number of people you have in your national wildlife refuge system taking care of these millions and millions of acres so that we can determine how adequate a job you are doing. If, as I anticipate, the new budget will probably cut you more than your present budget, how in the world will you be able to take care of this area? You might be turning back the wildlife refuge to nature and the only protection you give is just a fence—if you have a fence around it or signs around it. That is what I am trying to find out.
trying to find out.

Can somebody tell me the number of extra employees you hired throughout the entire system for 1980?

Mr. HESTER. We have approximately 1,000 full-time permanent people. My estimate now would be we would probably hire around another 1,000, some on a temporary or seasonal basis.

Mr. YATES. What is the basis for that estimate?

Mr. HESTER. It is the best estimate I can make at this point. We can provide you a more specific answer. I was simply providing the best answer I could at this time.

[The information follows:]

NATIONAL WILDLIFE REFUGE SYSTEM—OTHER PERSONNEL

There were 485 other personnel employed on National Wildlife Refuges in fiscal year 1980

Mr. YATES. All right. The estimate you have in the justification shows your permanent employees for each of the refuges.

Mr. HESTER. Yes, sir.

Mr. YATES. It does not show the use of temporary employees during that year.

Mr. HESTER. That is correct.

Mr. YATES. I assume you also let contracts for the care of the refuges at some times.

Mr. HESTER. Only for cyclical maintenance and things of that nature.

SERVICE EMPLOYMENT LEVELS

Mr. YATES. As of January 31 the figures we have show that the Fish and Wildlife Service had permanent positions of 4,900.

Mr. HESTER. Yes, sir.

Mr. YATES. How many of those are filled? All of them?

Mr. HESTER. At that point in time we were probably about 100 below that number.

Mr. YATES. The staff tells me that is actual employment. Your authorized ceiling was 5,127.

You have other positions shown under a tentative ceiling of 1,356 as of September 30. That figure was raised as of January 31 to 2,554. That is an actual employment figure.

I beg your pardon. You have actual outside employment of 2,554. Your ceiling as of September 30, 1981 was to be 1,356.

Mr. HESTER. Mr. Chairman, I might point out that the number you quoted there of around 2,500 is full-time equivalents. That is a translation of the work force in terms of the equivalent of full-time permanent people.

Mr. YATES. Are you sure of that? These are the figures from which I read. Look at that and you might want to correct your testimony.

Mr. SOKOLOSKI. These are the actual reporting figures from the Department. They do correctly reflect our ceilings as well as our actual status at the time referenced here. Therefore, the figures you read, a position ceiling of 1,356 for other employees, is correct.

The number of 2,554 actually on board as of January 31, 1981 also is correct. This reflects a normal, consistent pattern of employment in that category with the seasonal fluctuations we normally have.

Mr. YATES. That is Washington and the field?

Mr. SOKOLOSKI. The entire Service, yes.

Mr. YATES. How do we get that broken down? What I am trying to find out is what the state of the National Wildlife Refuge System is. I hope to be able to find out what it will be under the 1981 budget and under the 1982 Carter budget, and under the proposed Reagan budget if and when that comes in.

I have the idea there is a relationship between the condition of the refuge and the number of employees you have. The impression I have right now is that you have a below-minimum of employees and the system is pretty well taking care of itself, if it is taking care of itself.

Mr. SOKOLOSKI. This is part of our information system, a good deal of which is computerized. We can extract this in any form you wish and provide a report to address this question.

Mr. YATES. All right. Let's find out your total personnel which worked on your refuges during a fiscal year. Which fiscal year do you want to take?

Mr. SOKOLOSKI. We can do it for the last two years.

[The information follows.]

NATIONAL WILDLIFE REFUGE SYSTEM—FULL TIME PERMANENT PERSONNEL

A total of 1,020 full time permanent personnel were employed on National Wildlife Refuges in fiscal year 1979 or compared to 1,024 in fiscal year 1980.

REFUGE EMPLOYMENT

Mr. YATES. Let's look at page 131. I would like to know what your employment was for each of those years, broken down into permanent, part-time and by refuges.

Mr. SOKOLOSKI. It would be difficult to get other employees back to 1970.

Mr. YATES. How far back can you go?

Mr. HESTER. Four or five years.

Mr. YATES. Can you go back to 1975?

Mr. SOKOLOSKI. We will try that.

Mr. YATES. Let's go back to whatever year you can. When did you start computerizing?

Mr. SOKOLOSKI. Some of these programs started in different years. That is the difficulty in making the comparison.

Mr. YATES. Do you have all of them for any year?

Mr. SOKOLOSKI. Permanent, yes.

Mr. YATES. Would you have all the employees for any single year?

Mr. SOKOLOSKI. I can say now that back in 1970 the permanent full-time comprised almost all the employment.

Mr. YATES. That does not tell us the picture?

Mr. SOKOLOSKI. That is correct.

Mr. YATES. I am trying to find out the number of people taking care of the refuges and the number of people you have in Washington to take care of the people in the field.

Mr. SOKOLOSKI. We will give you the best estimate we can from all our data from 1970 through our estimates for 1982 for all refuge employment.

Mr. YATES. I also want to know the numbers of visitors for each of the refuges for each of the years.

Mr. SOKOLOSKI. We can provide that.

Mr. YATES. Go as far back as you can.

Mr. SOKOLOSKI. All right.

Mr. YATES. Check your computers and find out what is the first year that will give you all that information. If it is 1975, start there. If it is 1976, start there. If it is 1977, start there. We want the total picture for that.

[The information follows:]

NATIONAL WILDLIFE REFUGE SYSTEM
MANPOWER SUMMARY

Permanent Full Time (Man Years)1/

State/Refuge	FY-70	FY-71	FY-72	FY-73	FY-74	FY-75	FY-76	FY-77	FY-78	FY-79	FY-80
ALABAMA											
Choctaw	3(3.6)	3(3.5)	3(3.8)	3(4.6)	4(4.3)	4(4.5)	5(5.8)	4(4.6)	4(4.6)	4(4.7)	3(3.7)
Eufaula	5(6.5)	6(6.8)	6(6.1)	6(6.0)	6(6.0)	5(6.0)	5(6.4)	5(5.0)	6(6.7)	6(7.5)	6(6.9)
Wheeler	8(9.4)	9(9.5)	8(9.0)	9(10.1)	9(9.7)	9(10.0)	9(11.1)	8(8.5)	6(9.5)	7(10.0)	7(11.0)
ALASKA											
Aleutian Islands	3(3.0)	-(-)	-(0.7)	1(1.0)	1(2.5)	1(12)	2(12)	2(15)	4(11)	4(13)	4(9)
Arctic	2(2.0)	2.5(2.5)	4(3.5)	3.5(3.5)	4(3.5)	3(3)	5(5)	4(7)	4(6)	11(11)	8(9)
Becharof	-	-	-	-	-	-	-	-	-	1(1)	1(1)
Clarence Rhode	3(4.0)	3(4.4)	3(4.5)	3(4.6)	2(4.5)	4(7)	3(10)	6(16)	7(14)	8(12)	8(14)
Izembek	-(-)	2(3.0)	3(4.0)	3(3.6)	3(3.0)	3(4)	3(6)	3(4)	3(6)	3(7)	5(7)
Kenai	3(11.0)	7(22.7)	6(19.0)	6(10.6)	6(9.8)	6(10)	8(19)	8(13)	9(18)	10(16)	11(15)
Kodiak	4(4.0)	4(4.5)	4(4.0)	4(4.9)	3(4.1)	4(7)	2(8)	5(5)	5(8)	5(8)	5(7)
Yukon Flats	-	-	-	-	-	-	-	-	-	1(1)	2(2.5)
ARIZONA											
Imperial	2(3.5)	2(3.5)	3(3.5)	3(3.5)	3(3.8)	3(4.0)	3(4.2)	3(4.6)	4(5.7)	4(5.7)	4(6.7)
Kofa	3(3.5)	3(3.5)	4(3.5)	4(4.0)	3(3.5)	4(5.0)	3(4.1)	3(7.0)	1(7.2)	3(6.8)	3(5.5)
Cabeza Prieta	2(2.0)	2(2.0)	2(2.0)	1(1.5)	2(2.0)	1(1.5)	1(2)	3(6.8)	2(3.3)	2(3.4)	2(4.6)
ARKANSAS											
Big Lake	4(3.6)	4(3.8)	4(3.8)	3(3.8)	3(3.9)	2(4)	2(4)	3(4)	3(4)	2(5)	3(5)
Felsenthal							1(2)	1(2)	5(7)	3(7)	4(8)
Holla Bend	4(5.1)	4(5.1)	4(5.0)	4(5.0)	4(5.0)	4(5)	4(6)	4(5)	4(5)	5(6)	4(6)
Wapanocca	4(6.5)	4(5.5)	4(6.0)	4(5.5)	4(5.5)	3(5)	3(5)	3(5)	3(5)	3(6)	5(6)
White River	8(11.7)	8(11.5)	9(10.8)	9(9.7)	8(5.2)	12	10(17)	10(16)	15(16)	8(16)	11(16)
CALIFORNIA											
Modoc	3(5.0)	-	-	-	-	4(4)	-	1(1)	1(1)	1(2)	2(2)
Humboldt Bay	-(-)	-(-)	-(-)	1(2.0)	1(2.0)	2(2)	1(1)	1(1)	1(2)	1(2)	1(2)
Kern	6(9.0)	5(6.0)	6(7.0)	5(7.0)	7(8.0)	5(7)	6(6.8)	6(8.9)	9(10.6)	8(9.1)	8(9.6)
Sacramento	16(18.0)	15(17.0)	14(16.0)	14(17.0)	12(15.0)	11(14.2)	12(12)	13(15.3)	15(16.8)	15(17.5)	15(18)
Salton Sea	4(6.0)	4(6.0)	4(7.0)	5(7.0)	4(7.0)	5(8.8)	5(7.8)	5(7.8)	5(7.3)	5(7.3)	5(8.3)

1/ Permanent full-time personnel data from annual Budget Justifications (Congressional District Reports). Total man-years data for refuge field stations taken from Service PFMIS and field station personnel reports.

NATIONAL WILDLIFE REFUGE SYSTEM
MANPOWER SUMMARY

Permanent Full Time (Man Years)

State/Refuge	FY-70	FY-71	FY-72	FY-73	FY-74	FY-75	FY-76	FY-77	FY-78	FY-79	FY-80
CALIFORNIA											
San Francisco Bay	-(-)	-(-)	-(-)	2(2.0)	3(3.0)	4(5.5)	6(7)	6(7)	3(7)	8(9)	7(12)
San Luis	7(9.0)	6(7.0)	7(9.0)	7(8.0)	8(10.0)	9(9)	8(8)	7(8.6)	7(8)	6(8.5)	7(9.5)
Klamath Basin	21(22.0)	19(20.0)	19(19.0)	16(17.0)	13(14.0)	13(15.4)	12(15.9)	13(16.7)	15(18.6)	14(17.8)	15(18.8)
Cibola	1(1.0)	1(1.0)	1(1.0)	1(1.0)	1(1.0)	1(1.2)	1(1.4)	1(1.6)	3(4.0)	2(4.8)	2(5.5)
Havasu	6(7.5)	7(8.0)	8(8.0)	5(7.5)	7(8.5)	5(7.5)	6(7.7)	4(4.2)	7(7.3)	7(8.2)	6(8.1)
COLORADO											
Alamosa	4(4.3)	4(4.3)	4(4.0)	4(4.2)	4(4.0)	2(6)	2(6)	3(6)	2(5)	7(11)	7(10)
Arapaho	4(3.5)	4(4.4)	4(4.8)	4(4.2)	4(4.0)	3(4)	2(5)	5(8)	4(8)	4(8)	4(7)
Monte Vista	9(11.0)	9(10.5)	9(10.8)	9(10.9)	9(10.0)	6(13)	7(13)	8(11)	7(12)	2(3)	2(3)
Browns Park	1(2.8)	1(2.8)	1(2.8)	2(2.8)	2(1.8)	1(4)	1(4)	3(5)	2(6)	2(6)	2(3)
DELAWARE											
Bombay Hook	8(11.4)	9(9.9)	9(8.3)	8(8.3)	9(8.3)	9(9)	8(10.5)	7(7)	7(8)	7(8)	8(8)
Prime Hook	3(3.1)	3(3.1)	3(3.1)	3(3.1)	3(8.1)	2(3)	2(3.5)	3(3)	2(4)	4(4)	6(6)
FLORIDA											
Chassahowitzka	3(3.5)	3(3.7)	3(4.6)	3(3.9)	2(3.3)	3(3.5)	3(4.6)	3(4.1)	4(5.6)	3(4.4)	3(4.4)
Hobe Sound	-	1(2.0)	1(2.8)	1(2.0)	1(2.0)	1(2.0)	1(2.1)	1(1.9)	2(2.5)	1(2.5)	3(3.8)
J.N. "Ding" Darling	2(3.6)	2(3.0)	2(2.6)	4(5.0)	4(5.0)	3(4.5)	3(4.8)	3(3.8)	6(6.4)	5(6.2)	4(6.9)
Lake Woodruff	3(3.0)	3(2.9)	3(3.3.)	3(3.2)	3(3.0)	3(3.5)	3(3.8)	3(3.0)	5(5.9)	3(4.3)	2(4.6)
Loxahatchee	8(11.0)	8(2.0)	8(14.0)	8(13.0)	9(13.0)	9(12)	7(12.2)	7(10.9)	13(14.7)	8(14.2)	8(11.7)
Merritt Island	4(4.1)	4(4.5)	7(6.2)	7(17.5)	8(14.7)	7(14)	6(13.5)	6(9.1)	6(9.8)	8(15)	7(14.1)
National Key Deer	1(2.0)	1(1.5)	1(1.5)	1(2.3)	1(2.0)	1(2)	2(3.4)	2(2.9)	3(4.5)	3(5.3)	3(3.5)
Pelican Island	1(1.0)	1(1.0)	1(1.0)	1(1.0)	1(1.0)	1(1)	1(1.3)	1(1.0)	1(1.2)	1(1.7)	2(2.0)
St. Johns	-	-	-	-	-	-	1(1.1)	1(2.3)	2(2.3)	1(1.2)	1(1.0)
St. Marks	9(9.0)	7(8.6)	7(8.0)	7(7.8)	7(8.8)	11(12)	10(14.1)	10(12)	8(15.2)	12(17.3)	8(12.4)
St. Vincent	3(3.8)	3(3.7)	3(4.0)	3(4.3)	3(4.0)	3(5)	3(5.1)	3(4.1)	3(5.1)	4(5.3)	7(8.6)
Lower Suwannee	-	-	-	-	-	-	-	-	-	-	1(1.5)
GEORGIA											
Okefenokee	11(13.5)	13(15.8)	12(12.7)	12(12.7)	12(12.2)	13(15)	13(16.3)	13(17.8)	13(18.2)	13(19.1)	16(20.9)
Piedmont	6(8.1)	6(8.2)	6(7.2)	5(6.4)	5(6.0)	9(10)	9(10.4)	9(10.1)	11(11.7)	7(11.5)	8(11.2)

NATIONAL WILDLIFE REFUGE SYSTEM
MANPOWER SUMMARY

Permanent Full Time (Man Years)

State/Refuge	FY-70	FY-71	FY-72	FY-73	FY-74	FY-75	FY-76	FY-77	FY-78	FY-79	FY-80
HAWAII											
Hawaiian Islands	2(2.0)	2(3.0)	2(2.0)	2(2.0)	2(2.0)	3(3.8)	3(3.3)	3(4.9)	5(6.6)	5(9.7)	5(13)
IDAHO											
Camas	2(3.0)	3(5.0)	3(5.0)	2(4.0)	1(3.0)	1(3)	1(3)	1(3)	2(3)	2(3)	2(3)
Deer Flat	3(5.0)	5(6.0)	4(6.0)	3(4.0)	4(6.0)	4(4.8)	4(5.3)	4(6)	4(5.8)	4(5.3)	4(6.1)
Grays Lake	2(2.0)	2(5.0)	2(4.0)	3(4.0)	4(6.0)	4(6)	5(6)	3(5)	3(5)	3(5)	3(5)
Kootenai	2(3.0)	2(3.0)	2(3.0)	2(3.0)	2(3.0)	2(2.8)	2(2.8)	2(2.8)	1(2.3)	1(2.3)	1(2.8)
Minidoka	3(4.0)	2(3.0)	2(3.0)	2(3.0)	2(3.0)	2(3)	2(3)	1(3)	1(3)	1(3)	1(3)
Bear Lake	-	-	-	-	-	-	-	1(1.5)	2(3)	2(3)	2(3)
ILLINOIS											
Savanna District	-	-	-	-	-	-	1(1.5)	1(1.6)	2(2)	1(2.5)	3(3.5)
Crab Orchard	52(59.0)	52(59.0)	49(54.0)	47(52.0)	49(54.0)	39(42.5)	38(45.5)	37(40.5)	37(39.5)	29(40)	29(40.5)
Mark Twain	12(15.0)	12(15.0)	12(15.0)	12(15.0)	12(14.5)	12(13)	10(15)	11(13.5)	11(13.5)	10(13)	11(13.5)
Chautauqua	-	-	-	-	-	-	-	-	-	3(3)	2(3)
Calhoun District	-	-	-	-	-	-	-	-	-	-	3(3.5)
INDIANA											
Muscatatuck	2(3.5)	3(4.5)	3(4.5)	3(4.5)	3(4.5)	3(3.5)	3(3.5)	4(5.5)	4(5.5)	4(5)	5(5.5)
IOWA											
Lansing District	-	-	-	-	-	-	-	1(1)	1(1.5)	1(1.5)	2(3)
Desoto	9(16.5)	8(12.7)	9(14.1)	9(12.8)	8(13.5)	7(13)	7(13)	5(12)	4(11)	4(11)	9(11)
Union Slough	3(2.9)	3(2.9)	3(2.9)	3(3.2)	3(3.0)	2(3)	2(3)	2(3)	3(4)	3(4)	3(4)
Louisa District	-	-	-	-	-	-	-	-	-	-	3(3.5)
KANSAS											
Flint Hills	3(5.0)	4(4.6)	4(5.4)	2(4.5)	3(3.0)	1(3.5)	1(3.5)	3(5)	3(4.5)	3(5)	3(6)
Kirwin	8(8.4)	8(8.7)	7(7.5)	7(7.2)	7(7.0)	6(7)	5(7)	5(6)	5(6)	5(5)	4(5)
Quivira	5(6.7)	5(7.0)	5(7.0)	5(7.0)	5(6.5)	5(6)	5(6)	5(5)	4(7)	5(5)	6(6)
LOUISIANA											
Catahoula	1(1.0)	1(1.0)	1(1.0)	2(1.7)	2(2.3)	2(2.3)	1(2.3)	2(2.9)	3(4.6)	3(5.4)	3(4.2)
D'Arbonne	-	-	-	-	-	-	-	1(1)	4(4.7)	3(5.6)	4(5.9)
Delta-Breton	5(5.5)	5(5.8)	5(5.5)	4(4.3)	3(4.0)	3(4.0)	3(4.5)	3(3.8)	3(3.6)	3(3.4)	5(6.2)

NATIONAL WILDLIFE REFUGE SYSTEM
MANPOWER SUMMARY

Permanent Full Time (Man Years)

State/Refuge	FY-70	FY-71	FY-72	FY-73	FY-74	FY-75	FY-76	FY-77	FY-78	FY-79	FY-80
LOUISIANA											
Lacassine	4(4.5)	5(5.2)	4(5.6)	4(5.6)	4(5.3)	3(5.0)	3(6.4)	3(5)	4(5.9)	4(5.2)	6(7.1)
Sabine	6(6.4)	6(7.0)	6(7.0)	6(6.3)	5(6.5)	4(6.0)	3(6.9)	3(6.1)	6(6.7)	7(7.0)	7(7.5)
Upper Ouachita	-	-	-	-	-	-	-	-	-	-	2(2.6)
MAINE											
Moosehorn	6(7.0)	7(8.1)	7(8.2)	7(8.0)	5(5.8)	5(5.5)	5(6)	6(7.5)	6(7)	5(8)	5(7)
MARYLAND											
Blackwater	8(9.3)	8(9.2)	8(9.3)	8(11.0)	9(9.9)	6(8.5)	7(12)	6(7)	6(12)	9(10.5)	8(11)
Martin	1(1.3)	1(1.2)	1(1.1)	1(1.0)	1(1.0)	1(1)	1(2)	1(1)	1(1)	0(.5)	1(1.5)
Eastern Neck	2(3.5)	2(3.5)	2(3.5)	2(3.5)	2(2.5)	3(3)	4(4)	3(3)	5(5)	4(5)	4(4)
MASSACHUSETTS											
Great Meadows	4(4.4)	4(4.5)	4(4.3)	4(4.3)	4(4.0)	3(5)	4(5)	5(5)	6(6)	4(6)	4(7)
Parker River	7(9.2)	7(10.6)	9(12.8)	9(13.0)	9(13.0)	6(12.5)	6(13)	9(11)	8(13)	9(14)	9(15)
MICHIGAN											
Seney	7(9.0)	8(10.0)	8(10.0)	8(10.0)	8(10.0)	6(9)	6(7.5)	6(7.5)	5(7)	4(8.5)	5(8)
Shiawassee	7(7.5)	6(6.5)	6(6.5)	6(7.0)	6(6.5)	4(6.5)	3(6.5)	4(6)	7(9)	4(9.5)	4(11)
MINNESOTA											
Winona (N. Sign Ctr.)	-	-	-	-	-	5(5)	5(5)	5(5.5)	5(6)	2(6)	2(6)
Agassiz	6(8.0)	6(8.0)	6(8.0)	6(8.0)	6(6.0)	5(8)	4(10.5)	5(8)	8(11.5)	5(11)	5(12)
Rice Lake	3(4.0)	3(4.0)	3(4.0)	3(4.0)	3(4.0)	3(3.5)	3(3.5)	3(3)	3(3)	4(4.5)	3(5.5)
Sherburne	6(10.0)	9(12.0)	9(11.0)	9(12.0)	7(10.0)	(8.5)	7(8.5)	6(7.5)	5(6.5)	7(8)	7(8.5)
Tamarac	7(9.0)	8(10.0)	7(9.0)	7(9.0)	7(9.0)	8(9)	7(9)	7(8.5)	5(6.5)	6(7)	5(8)
Upper Miss. River	13(17.0)	13(17.0)	15(19.0)	16(20.0)	16(20.0)	14(16)	13(15)	10(14)	10(13)	10(13)	10(13.5)
MN Wetlands Complex	7(12.0)	11(18.0)	12(18.0)	13(19.5)	13(20.5)	14(18)	17(20.5)	14(20.5)	13(25)	17(40	20(47.5)
Minnesota Valley	-	-	-	-	-	-	-	-	-	3(7.5)	3(13)
Big Stone	-	-	-	-	-	3(4.5)	3(5.5)	4(5.5)	3(4)	3(6.5)	4(7.5)
MISSISSIPPI											
Hillside (incl. Morgan Brake)	-	-	-	-	-	-	0(0.5)	1(1.3)	2(2.8)	1(1.4)	2(4.5)
Noxubee	11(12.5)	9(10.2)	9(10.2)	8(9.2)	8(7.8)	8(10)	7(11.5)	7(10.1)	9(11)	7(9.2)	8(11.9)

NATIONAL WILDLIFE REFUGE SYSTEM
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Permanent Full Time (Man Years)

State/Refuge	FY-70	FY-71	FY-72	FY-73	FY-74	FY-75	FY-76	FY-77	FY-78	FY-79	FY-80
MISSISSIPPI											
Yazoo	4(6.5)	5(6.1)	5(5.3)	5(5.3)	5(5.2)	5(5.5)	5(6.4)	5(5.4)	5(5.2)	5(5.4)	5(5.9)
Miss. Sandhill Crane	-	-	-	-	-	-	-	-	1(1.4)	2(2.6)	2(2.4)
Panther Swamp	-	-	-	-	-	-	-	-	-	0(1)	1(1.7)
MISSOURI											
Mingo	8(7.0)	8(7.0)	9(7.3)	8(7.5)	8(7.5)	7(7)	8(8)	8(8.5)	7(8)	7(8)	6(8)
Squaw Creek	6(5.9)	6(5.9)	6(5.9)	6(6.0)	5(5.0)	5(5)	5(5)	5(5.5)	5(6)	6(6.5)	5(6)
Swan Lake	7(5.8)	7(5.7)	7(5.7)	6(5.9)	6(6.3)	6(6)	4(4)	4(4.5)	4(5)	4(5)	4(5)
Clarence Cannon	-	-	-	-	-	-	-	-	-	-	2(3)
MONTANA											
Benton Lake	3(5.0)	3(5.9)	3(5.0)	4(4.9)	4(4.7)	3(5)	3(5)	3(4)	4(4)	4(7)	4(4)
Charles M. Russell	23(30.0)	20(14.0)	17(14.0)	13(14.0)	13(14.0)	10(17)	12(22)	19(30)	19(33)	22(40)	22(39)
Medicine Lake	5(7.0)	5(5.8)	4(6.0)	5(7.8)	5(6.5)	3(8)	3(7.5)	6(9)	6(7)	4(6)	6(6)
National Bison	6(10.0)	6(9.0)	6(8.0)	6(8.5)	6(9.5)	8(15.5)	8(11)	9(11)	10(10.5)	8(11)	7(10)
Lee Metcalf	4(3.0)	4(4.5)	2(4.0)	4(4.0)	4(3.5)	2(4)	1(4)	2(4)	2(2)	1(4)	2(2)
Red Rock Lakes	4(5.0)	5(5.6)	4(5.0)	5(5.2)	4(4.6)	2(4)	2(4)	3(5)	4(6)	4(6)	4(6)
Bowdoin	4(2.0)	4(6.0)	4(6.0)	4(5.0)	4(7.5)	4(8)	4(7)	4(5)	4(9)	4(7)	4(6)
NEBRASKA											
Crescent Lake	3(4.5)	3(4.5)	2(4.5)	2(4.5)	3(4.6)	2(8)	2(8)	5(7)	3(8)	3(6)	3(7)
Fort Niobrara	9(11.5)	9(11.4)	9(11.6)	9(11.1)	9(7.7)	7(16)	7(12)	9(11)	9(13)	10(13)	8(11)
Hastings WMD (Kearney)	2(2.0)	2(2.0)	2.5(2.8)	2.5(3.3)	2.5(2.5)	2(4.5)	2(4)	4(6)	4(6)	5(8)	4(6)
NEVADA											
Desert	7(7.0)	7(7.0)	8(8.0)	7(7.0)	7(7.0)	6(6)	6(7.2)	5(5.5)	6(7.4)	4(5.5)	4(5.3)
Ruby Lake	4(4.0)	3(5.0)	3(5.0)	4(5.0)	3(4.0)	3(3.3)	2(3.3)	2(4.6)	3(5.3)	3(5.3)	3(6.3)
Stillwater	8(8.0)	7(8.0)	8(9.0)	8(9.0)	8(9.0)	8(8)	6(6)	6(6)	4(4.5)	3(3.8)	3(5.1)
NEW JERSEY											
Brigantine	6(6.1)	6(7.2)	6(7.3)	7(8.7)	5(6.7)	4(6)	3(5.5)	6(7)	4(8)	5(9)	7(9)
Great Swamp	4(7.9)	8(11.0)	10(10.1)	7(10.2)	8(8.0)	8(10)	5(8)	7(8)	5(6)	6(7)	6(8.5)

NATIONAL WILDLIFE REFUGE SYSTEM
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Permanent Full Time (Man Years)

State/Refuge	FY-70	FY-71	FY-72	FY-73	FY-74	FY-75	FY-76	FY-77	FY-78	FY-79	FY-80
NEW MEXICO											
Grulla	-	-	-	-	-	-	-	(0.1)	-	1(1.1)	1(1.0)
Bitter Lake	4(4.5)	4(4.5)	4(4.5)	4(4.5)	4(4.5)	4(4)	4(4)	5(6.1)	3(3.9)	4(5.4)	4(5.4)
Bosque del Apache	10(10.5)	10(11.0)	10(10.5)	9(10.5)	9(10.5)	9(10.5)	9(10.5)	9(10.2)	12(13.2)	10(12.8)	9(13.1)
San Andres	3(3.2)	3(3.2)	3(3.2)	3(3.2)	3(3.2)	1(1.0)	1(1.0)	1(1.0)	1(1.0)	1(1.0)	1(1.2)
Sevilleta	-	-	-	-	1(1.5)	1(1.5)	1(2.0)	1(2.0)	1(2.9)	1(3.0)	1(3.0)
Las Vegas	3(3.5)	3(3.5)	3(3.5).	2(3.5)	3(3.5)	2(3.5)	2(3.8)	2(3.7)	2(4.4)	1(3.7)	2(4.4)
Maxwell	1(1.5)	1(1.5)	1(1.5)	2(2.0)	1(1.5)	1(2.0)	2(2.5)	2(2.1)	2(2.3)	2(3.3)	2(2.9)
NEW YORK											
Iroquois	7(7.0)	6(6.2)	7(7.5)	7(7.0)	7(7.5)	6(8)	6(10.5)	5(5.5)	8(8)	6(8.5)	6(8)
Montezuma	6(7.0)	6(7.0)	7(7.1)	6(8.8)	5(6.4)	5(6)	5(6)	6(6)	7(7)	7(8)	6(9)
Target Rock	1(1.7)	5(5.8)	5(7.8)	6(7.3)	6(7.1)	5(7)	5(7)	4(7)	5(6)	4(8)	5(6.5)
NORTH CAROLINA											
Mattamuskeet	8(12.7)	11(11.0)	11(11.0)	11(11.0)	11(21.0)	11(14)	10(14)	11(11.7)	12(12.7)	13(13.1)	13(13.8)
Cedar Island	1(2.0)	1(2.0)	1(2.0)	1(1.8)	1(1.8)	1(1.5)	1(1.5)	1(1.5)	1(1.5)	1(1.5)	1(1.5)
Pea Island	3(3.5)	3(3.1)	3(3.5)	3(3.4)	3(3.7)	2(4)	2(4.9)	2(4.4)	3(4.7)	3(4)	3(3.8)
Pee Dee	2(2.9)	1(2.4)	1(2.5)	2(2.5)	2(2.5)	3(4)	4(5.7)	4(4.8)	5(5.6)	5(6.4)	5(6.3)
Pungo	5(8.3)	4(7.4)	4(7.4)	4(7.4)	4(7.5)	3(7)	2(7.2)	3(6.3)	5(6.4)	6(7.6)	6(7.6)
NORTH DAKOTA											
Arrowwood	5(6.4)	6(7.9)	5(6.6)	5(6.6)	7(9.7)	6(8.5)	6(9.5)	6(11)	9(10)	9(11.5)	9(12)
Audubon	4(5.3)	4(5.4)	4(5.2)	4(5.2)	4(4.9)	4(7)	4(7)	4(7)	4(6)	3(11)	3(10)
Crosby WMD	3(3.2)	3(4.1)	3(4.0)	3(4.0)	3(2.9)	2(2)	1(2)	1(2)	1(2)	1(2)	1(2)
Des Lacs	4(5.3)	5(6.3)	4(5.0)	4(5.0)	6(7.1)	9(16)	8(15)	8(16)	9(15)	9(11)	8(10)
Lake Ilo	1(1.3)	-	1(1.2)	1(1.2)	-	1(2)	1(2)	1(2)	1(2)	1(2)	1(2)
Devils Lake WMD	2(4.0)	4(9.7)	3(4.2)	3(4.2)	5(6.1)	3(9)	4(10)	7(9.5)	10(15)	6(9.5)	6(10)
J. Clark Salyer	8(10.6)	8(10.6)	8(10.5)	8(10.5)	8(8.5)	6(11)	7(10)	7(9)	7(13)	6(10)	7(11)
Kulm WMD	-	-	3(4.0)	3(4.0)	3(3.5)	1(4)	2(5)	3(6)	3(8)	3(8)	6(6)
Tewaukon	4(5.6)	4(5.1)	4(5.7)	4(5.7)	4(4.3)	3(7)	2(8)	4(7)	2(8)	3(6)	2(6)
Upper Souris	4(5.0)	4(5.0)	5(5.7)	5(5.7)	4(4.8)	4(7)	3(7)	4(6)	5(7)	4(6)	4(5)
OHIO											
Ottawa	6(7.0)	6(7.0)	6(7.0)	6(6.5)	6(7.0)	3(3.5)	3(3.5)	4(6)	6(8)	5(8)	4(9.5)

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State/Refuge	FY-70	FY-71	FY-72	FY-73	FY-74	FY-75	FY-76	FY-77	FY-78	FY-79	FY-80
OKLAHOMA											
Optima	-	-	-	-	-	1(1.0)	1(1.0)	1(1.0)	1(1.4)	2(2.7)	1(1.7)
Salt Plains	7(8.5)	6(7.5)	6(7.0)	6(7.0)	6(7.5)	5(6.5)	5(6.6)	5(6.2)	6(6.4)	6(6.6)	6(6.9)
Sequoyah	1(1.5)	2(2.5)	3(4.0)	3(4.0)	3(4.5)	3(3.5)	3(4.0)	3(4)	4(5.5)	4(6)	4(6.1)
Tishomingo	5(8.5)	5(8.0)	6(8.0)	4(7.5)	5(8.0)	5(7)	5(7.8)	5(7.6)	7(9)	4(6.8)	5(8.2)
Washita	4(6.0)	4(5.5)	4(4.5)	3(4.5)	5(6.0)	5(5.3)	4(5.4)	5(6.7)	5(6)	5(6)	5(6)
Wichita Mtns.	15(20.0)	18(23.0)	20(24.0)	22(28.0)	22(28.0)	18(26)	17(27.6)	19(29.3)	18(26.9)	16(26.1)	20(33.2)
OREGON											
Malheur	14(17.0)	16(17.0)	12(13.0)	13(17.0)	11(13.0)	10(12.4)	10(11.8)	10(12.9)	10(13.3)	11(14.8)	11(14.8)
Sheldon-Hart Mtn.	9(9.0)	12(13.0)	10(13.0)	8(12.0)	11(13.0)	5(10.6)	8(9.5)	9(11.3)	11(13.3)	7(13.3)	9(14.1)
Umatilla	3(5.0)	3(4.0)	4(6.0)	4(5.0)	5(6.0)	5(5)	5(5)	5(6.8)	5(6.8)	5(6.5)	4(5.3)
Wm. F. Finley	6(6.0)	6(7.0)	6(9.0)	6(7.0)	6(7.0)	6(7)	6(6)	8(10.8)	8(10.3)	8(10.3)	8(10.3)
PENNSYLVANIA											
Erie	4(5.5)	4(5.5)	4(5.2)	4(5.2)	4(4.7)	4(5)	4(4.5)	4(4)	3(5)	4(5)	4(5)
Tinicum N.E.C.	-	-	-	-	-	2(3)	2(3.5)	3(3.5)	5(7)	5(7)	6(7)
RHODE ISLAND											
Ninigret	-	-	-	-	-	1(2)	1(2.5)	2(2)	2(2.5)	2(3)	3(3)
SOUTH CAROLINA											
Cape Romain	5(5.3)	5(7.2)	5(7.5)	5(6.9)	4(6.9)	4(7.5)	3(8.3)	5(7.3)	6(8.3)	6(8.7)	5(7.8)
Carolina Sandhills	5(5.6)	5(5.6)	5(5.6)	5(6.1)	5(6.1)	5(7)	4(7.7)	4(6.9)	6(7.6)	7(8.1)	9(9.6)
Santee	8(9.0)	8(9.0)	9(9.8)	8(9.0)	8(8.8)	8(9)	8(9.2)	8(8.6)	8(8.3)	8(9.9)	8(9.5)
Savannah	8(8.5)	8(8.0)	6(8.0)	7(8.0)	7(8.0)	6(8)	8(9.5)	7(9.5)	12(13.5)	13(14.4)	9(10.5)
Blackbeard Island	2(2.0)	2(2.0)	2(2.5)	1(2.0)	1(2.0)	1(2)	1(2)	1(2)	1(2)	1(2)	1(2)
Harris Neck	2(2.0)	2(2.0)	2(2.0)	2(2.0)	2(2.0)	1(2)	1(2)	1(2)	1(2)	1(2)	1(2)
Wassaw	-	-	-	-	-	1(2)	1(2)	1(2)	1(2)	1(2)	1(2)
SOUTH DAKOTA											
Lacreek	5(5.6)	5(5.5)	5(5.5)	4(6.0)	5(4.8)	2(6)	2(7)	4(8)	4(8)	4(7)	4(6)
Lake Andes	5(9.0)	4(7.0)	6(9.0)	6(7.5)	5(8.0)	3(13)	3(13)	4(8)	3(18)	4(9)	3(9)
Madison WMD	3(6.2)	3(5.7)	4(5.3)	4(5.2)	4(5.7)	2(10)	2(10)	3(5)	2(7)	2(7)	3(6)
Sand Lake	7(8.8)	7(9.3)	7(9.4)	5.5(9.2)	5(9.0)	6(10)	4(10)	8(10.5)	6(16)	7(12)	7(11)
Waubay	3(7.0)	3(7.0)	3(7.0)	3(8.0)	3(8.0)	3(8)	4(8)	5(9.5)	1(10)	3(8.5)	3(6)

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State/Refuge	FY-70	FY-71	FY-72	FY-73	FY-74	FY-75	FY-76	FY-77	FY-78	FY-79	FY-80
TENNESSEE											
Cross Creeks	5(7.2)	5(7.1)	6(7.3)	6(7.0)	5(6.8)	5(7)	5(7.3)	5(5.8)	6(6.2)	6(7.1)	4(6.9)
Hatchie	2(3.2)	2(3.4)	2(3.5)	2(3.5)	2(3.6)	3(4)	3(5.7)	3(4.7)	3(5.3)	3(5)	3(5.5)
Reelfoot	5(5.5)	5(5.4)	5(5.6)	6(6.4)	6(6.4)	5(7)	5(7.5)	5(5.7)	5(5.8)	5(7.1)	6(7.5)
Tennessee	11(11.0)	12(12.3)	12(12.0)	12(13.1)	12(15.5)	9(14)	9(13.1)	9(11.3)	13(14)	11(15.8)	10(15.6)
TEXAS											
Anahuac	2(5.5)	3(3.5)	3(5.5)	3(5.5)	3(6.0)	3(5.5)	3(5.7)	6(8.7)	6(8.5)	7(8.6)	5(8.5)
McFaddin	-	-	-	-	-	-	-	-	-	-	2(2.2)
Sea Rim	-	-	-	-	-	-	-	-	-	-	1(1.0)
Aransas	11(14.5)	11(14.0)	11(14.0)	11(14.0)	11)15.5)	9(11.5)	9(10.9)	9(11.3)	10(12.6)	10(13.2)	11(17)
Brazoria	1(1.5)	1(1.5)	1(1.5)	1(1.5)	3(3.5)	3(3)	2(2)	2(2.5)	2(3)	2(3.4)	1(3.8)
San Bernard	0(0.3)	0(0.3)	0(0.3)	1(1.0)	0(0.5)	0(0.5)	0(1)	1(2)	2(2.9)	2(3.8)	1(2.9)
Laguna Atascosa	5(7.5)	6(7.5)	6(7.5)	5(7.0)	6(7.5)	6(7)	6(7.1)	5(6.9)	7(8)	7(8)	6(8.6)
Santa Ana	1(2.5)	-	-	-	3(3.5)	3(3)	2(2.2)	3(3.7)	4(4.9)	5(6.1)	3(5.6)
Rio Grande	-	-	-	-	-	-	-	-	-	-	1(1.0)
Attwater Pr. Chicken	-	-	-	1(1.0)	2(2.5)	2(2.5)	2(3.7)	3(4)	4(5.6)	2(4.5)	1(3.3)
Buffalo Lake	4(8.0)	4(6.0)	4(6.0)	3(4.0)	3(4.5)	3(3.5)	2(3)	1(2)	2(3)	1(2)	1(2.8)
Hagerman	4(6.0)	4(6.0)	2(4.5)	2(3.5)	2(4.5)	4(4.5)	4(5)	2(3.7)	3(4.5)	3(4.9)	3(5.8)
Muleshoe	2(2.5)	2(2.5)	1(2.0)	1(2.0)	1(1.5)	1(1.5)	1(2.1)	2(3.8)	2(2.5)	1(2.9)	2(3.9)
UTAH											
Bear River	8(9.0)	8(10.0)	8(9.0)	8(9.0)	8(9.0)	6(9)	7(9)	9(10)	8(9)	9(9)	8(9)
Fish Springs	3(7.6)	3(6.0)	3(5.5)	4(5.4)	4(2.3)	2(3)	2(2.5)	3(4)	3(5.5)	3(5.5)	3(5)
Ouray	4(4.8)	4(4.8)	4(4.8)	4(4.8)	4(4.8)	3(5)	3(5)	4(4)	3(6)	5(5)	5(5)
VERMONT											
Missisquoi	2(2.6)	2(2.8)	2(2.7)	2(2.7)	2(1.8)	1(2)	1(2)	2(2)	3(3)	2(4)	2(4)
VIRGINIA											
Back Bay	6(5.5)	7(7.8)	6(9.4)	7(10.0)	8(9.4)	5(6.5)	4(9.5)	6(11)	6(11.5)	6(10)	8(8.5)
Mackay Island	-	-	2	-	2	2(2)	2(2)	2(2)	3(3)	3(3)	2(2)
Chincoteague	9(20.0)	10(19.0)	11(17.0)	12(16.0)	11(15.0)	10(18)	8(18)	13(19)	12(21)	14(22)	11(22)
Dismal Swamp	-	-	-	2(2.2)	2(4.0)	2(5)	2(7)	2(7)	7(9)	3(10)	6(12.5)
Mason Neck	-	1(0.8)	1(1.8)	1(1.3)	1(0.7)	1(2.5)	1(2)	1(2)	1(3.5)	2(3)	3(3)
Presquile	2(2.7)	2(3.1)	2(3.1)	2(3.1)	2(2.5)	2(2.5)	2(2.5)	2(2.5)	2(2.5)	2(2.5)	2(2.5)

NATIONAL WILDLIFE REFUGE SYSTEM
MANPOWER SUMMARY

Permanent Full Time (Man Years)

State/Refuge	FY-70	FY-71	FY-72	FY-73	FY-74	FY-75	FY-76	FY-77	FY-78	FY-79	FY-80
WASHINGTON											
Columbia	5(6.0)	6(8.0)	6(7.0)	6(7.0)	6(7.0)	6(6)	6(10)	5(6.3)	7(7)	8(8)	8(8)
McNary	5(8.0)	5(6.0)	5(6.0)	5(6.0)	5(6.0)	4(7.8)	5(7.8)	7(8)	7(8)	5(6)	4(5)
Nisqually	-	-	-	-	2	2(3.3)	2(3.3)	2(3.3)	5(7.1)	6(7.5)	6(7.5)
Toppenish	1(3.0)	3(4.0)	3(4.0)	3(4.0)	2(3.0)	2(3)	2(3)	2(3)	-	-	-
Lower Columbia River	-	-	7	-	6(0)	9(11.9)	9(10.6)	9(13.2)	11(15.6)	11(15.3)	10(14.3)
Ridgefield	2(3.0)	3(5.0)	3(4.0)	4(5.0)	2(4.0)	-	-	-	-	-	-
Turnbull	5(5.0)	6(7.0)	6(7.0)	5(6.0)	4(5.0)	4(4.1)	3(3.8)	3(4.5)	4(5)	5(6.5)	5(6)
WISCONSIN											
Horicon	5(6.0)	5(6.0)	4(5.0)	4(5.0)	4(5.0)	4(4.5)	4(4.5)	5(9.5)	6(11)	6(12)	6(11)
Necedah	6(7.5)	5(7.0)	5(6.5)	5(6.5)	6(6.5)	6(6)	5(6)	6(6.5)	4(5)	4(6)	4(6.5)
Trempeleau District	-	-	-	-	-	2(2)	2(2)	2(2)	1(1)	1(3.5)	1(4.5)
LaCrosse District	-	-	-	-	-	2(2)	2(2)	2(2)	2(2.5)	2(2.5)	2(3)
Cassville District	-	-	-	-	-	1(2)	1(2)	1(1)	2(2.5)	2(2.5)	3(3.5)
WYOMING											
National Elk	10(22.0)	10(27.0)	10(11.9)	10(10.6)	8(14.8)	7(8)	6(8)	7(10.5)	7(13)	7(12)	7(8)
Seedskadee	2(3.0)	-	2	-	2(2)	2(2)	2(3)	2(3)	2(3)	2(3)	2(3)
NWRS PFT TOTAL	884	912.5	930.5	910.5	939.5	852.0	823.0	1,049	1,029	1,020	1,024

ALL POSITIONS IN THE REFUGE SYSTEM
YCC AND YACC

	1971		1972		1973		1974		1975		1976		1977	
	YCC		YCC		YCC		YCC		YCC		YCC		YCC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
ALABAMA														
WILDLIFE REFUGES														
CHOCTAW														
EUFAULA											4	20	4	20
WHEELER	8	25	8	25	8	25	7	20	4	20	12	38	12	38
ALASKA														
WILDLIFE REFUGES														
KENAI							6	30	6	30	6	30	6	30
NORTH SLOPE														
ARIZONA														
WILDLIFE REFUGES														
HAVASU (See CA)														
ARKANSAS														
WILDLIFE REFUGES														
HOLLA BEND											4	16	4	18
WHITE RIVER											4	18	4	18
CALIFORNIA														
WILDLIFE REFUGES														
KERN														
SACRAMENTO														
SALTON SEA														
SAN LUIS														
KLAMATH BASIN											8	20	8	20
CIBOLA														
HAVASU							4	20	4	20	6	30	4	20
TULE LAKE														
MODOC														

	1978				1979				1980				1981			
	YCC		YACC		YCC		YACC		YCC		YACC		YAC		YACC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
ALABAMA																
WILDLIFE RF																
CHOCTAW	4	20		6	4	20		7	4	20			2	10		6
EUFAULA	4	20		1	3	12		16	2	10			2	10		1
WHEELER	4	20		18	4	20		25	3	15			3	15		4
ALASKA																
WILDLIFE RF																
KENAI	6	30	4	28	6	30	4	52			4	52	4	20	4	52
NORTH SLOPE											6	20			6	20
ARIZONA																
WILDLIFE RF																
HAVASU(See CA)																
ARKANSAS																
WILDLIFE RF																
HOLLA BEND	4	20		16	4	20		16	2	12						3
WHITE RIVER	5	24	2	20	5	24	2	41	3	15			2	15	2	8
CALIFORNIA																
WILDLIFE RF																
KERN	3	12		3												
SACRAMENTO	4	18	2	14	4	18	2	26			10	64			2	17
SALTON SEA	1	10			1	10									1	7
SAN LUIS			1	10			1	10							1	8
KLAMATH BASIN	8	20		15				20								
CIBOLA				2				1	4	20			6	30		2
HAVASU	8	20		28	8	20		28								
TULE LAKE				1				10								
MODOC				1				10								

ALL POSITIONS IN THE REFUGE SYSTEM
YCC AND YACC

	1971 YCC		1972 YCC		1973 YCC		1974 YCC		1975 YCC		1976 YCC		1977 YCC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
COLORADO														
WILDLIFE RF														
ALAMOSA														
ARAPAHOE														
DELAWARE														
WILDLIFE RF														
BOMBAY HOOK			4	20	4	20	4	20	4	20	4	20	4	22
FLORIDA														
WILDLIFE RF														
JN'DING' DARLING											3	16	3	16
LOXAHATCHEE														
MERRITT ISLAND											12	40	12	40
ST. MARKS							4	20	4	20	4	20	4	20
ST. VINCENT														
GEORGIA														
WILDLIFE RF														
OKEFENOKEE											10	42	10	42
PIEDMONT	8	25	8	25	8	25					4	20	4	20
SAVANNAH														
HAWAII														
WILDLIFE RF														
HI/PAC ISLANDS							4	20	4	20				
IDAHO														
WILDLIFE RF														
DEER FLAT							4	20	4	20	4	20	4	20

	1978				1979				1980				1981			
	YCC		YACC		YCC		YACC		YCC		YACC		YAC		YACC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
COLORADO																
WILDLIFE RF																
ALAMOSA			1	20			1	18	4	20			4	21	2	10
ARAPAHOE	4	16		12	3	16		12								
DELAWARE																
WILDLIFE RF																
BOMBAY HOOK	4	22	5	35	4	22	5	51	4	22	10	74	4	20	5	28
FLORIDA																
WILDLIFE RF																
JN'DING' DARLING	4	20		17	4	20		15	2	10			2	10		7
LOXAHATCHEE			2	30	3	15	2	31								
MERRITT ISLAND	14	50		20	14	50		22	4	20			2	18	1	10
ST. MARKS	5	25		7	5	25		16	4	16			3	15		2
ST. VINCENT				4				3	2	10			2	10		20
GEORGIA																
WILDLIFE RF																
OKEFENOKEE	15	60	2	24	15	60	2	51	5	28			6	35		23
PIEDMONT	4	20		12	4	20		26	4	16			3	14		6
SAVANNAH			1	10			1	12					2	10	1	16
HAWAII																
WILDLIFE RF																
HI/PAC ISLANDS	4	20	3	21	4	20	3	42	3	15	3	14	3	16	3	13
IDAHO																
WILDLIFE RF																
DEER FLAT	4	20		3	4	20		10	4	22			4	23		12

ALL POSITIONS IN THE REFUGE SYSTEM
YCC AND YACC

	1971		1972		1973		1974		1975		1976		1977	
	YCC		YCC		YCC		YCC		YCC		YCC		YCC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
ILLINOIS														
WILDLIFE RF														
CRAB ORCHARD	8	25	8	25	8	25	16	40	16	40	16	40	16	40
MARK TWAIN											4	20	4	20
INDIANA														
WILDLIFE RF														
MUSCATATUCK							4	20	4	20	4	20	4	20
IOWA														
WILDLIFE RF														
DESOTO							3	15	3	15	4	20	4	20
UNION SLOUGH													3	12
KANSAS														
WILDLIFE RF														
FLINT HILLS											4	16	4	20
QUIVIRA											4	16	4	16
KENTUCKY														
WILDLIFE RF														
LOUISIANA														
WILDLIFE RF														
D'ARBONNE														
LACASSINE											3	14	4	14
SABINE														
MAINE														
WILDLIFE RF														
MOOSEHORN	16	75	16	75	16	75	16	40	16	40	16	40	16	40

	1978				1979				1980				1981			
	YCC		YACC		YCC		YACC		YCC		YACC		YAC		YACC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
ILLINOIS																
WILDLIFE RF																
CRAB ORCHARD	10	40	6	42	10	40	6	89	4	20	8	40	4	20	6	30
MARK TWAIN	5	24		21	5	24		21								1
INDIANA																
WILDLIFE RF																
MUSCATATUCK	4	20	1	7	4	20	1	16	4	16			3	16	1	2
IOWA																
WILDLIFE RF																
DESOTO	4	20		2	4	20		11	4	20			4	20		6
UNION SLOUGH			3	16				9								
KANSAS																
WILDLIFE RF																
FLINT HILLS			5	24	2	14	5	24	2	14						
QUIVIRA			4	20	2	14	4	20	2	16						
KENTUCKY																
WILDLIFE RF																
LOUISIANA																
WILDLIFE RF																
D'ARBONNE					3	20			3	12			2	10		1
LACASSINE	3	14		10	3	14		10								
SABINE			1	7			1	7							1	10
MAINE																
WILDLIFE RF																
MOOSEHORN	16	40	1	7	16	40	1	12	8	20			8	20	1	5

ALL POSITIONS IN THE REFUGE SYSTEM
YCC AND YACC

	1971		1972		1973		1974		1975		1976		1977	
	YCC		YCC		YCC		YCC		YCC		YCC		YCC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
MARYLAND														
WILDLIFE RF														
BLACKWATER							4	20	4	20	4	20	4	20
EASTERN NECK											8	22	8	22
MASSACHUSETTS														
WILDLIFE RF														
GREAT MEADOWS													3	12
PARKER RIVER			4	20	4	20	4	20	4	20	4	20	4	20
MICHIGAN														
WILDLIFE RF														
SENEY							4	20	4	20	4	20	4	20
SHIAWASSEE											4	20	4	20
MINNESOTA														
WILDLIFE RF														
RICE LAKE											3	10	4	20
SHERBURNE			4	20	4	20	4	20	4	20	6	20	7	20
TAMARAC											12	36	11	30
BIG STONE											4	18	4	20
MORRIS											3	10	3	14
DETROIT LAKES														
MISSISSIPPI														
WILDLIFE RF														
MS SANDHILL CRANE														
NOXUBEE	8	25	8	25	8	25	8	25	7	20	4	20	4	20
YAZOO														

	1978				1979				1980				1981			
	YCC		YACC		YCC		YACC		YCC		YACC		YAC		YACC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
MARYLAND																
WILDLIFE RF																
BLACKWATER	4	20	1	10	4	20	1	21	4	20			4	20	1	7
EASTERN NECK	8	22	1	17	8	22	1	19	3	22			4	20		
MASSACHUSETTS																
WILDLIFE RF																
GREAT MEADOWS	3	12		5	3	12		10					3	14		3
PARKER RIVER	4	20	5	35	4	20	5	52	3	14	10	50	3	18	5	30
MICHIGAN																
WILDLIFE RF																
SENEY	4	20	4	30	4	20	4	49	3	18	10	65	3	16	4	35
SHIAWASSEE	5	24	1	17	5	24	1	29	3	18			3	18	1	7
MINNESOTA																
WILDLIFE RF																
RICE LAKE	9	24		10	9	24		6								2
SHERBURNE	10	28		26	6	28		31	4	20			4	20		4
TAMARAC	16	36	7	22	16	36	7	59	12	34	10	66	9	22	5	6
BIG STONE.	5	26		5	5	26		10								
MORRIS	6	28	1	17	8	38	1	31	4	22			4	20	1	7
DETROIT LAKES	3	12	1	7	2	12	1	14							1	7
MISSISSIPPI																
WILDLIFE RF																
MS SANDHILL CRANE			2	36			2	20							1	7
NOXUBEE	4	20		18	4	20		25	3	15			3	15		4
YAZOO	5	24		2	4	24		4	2	10			2	10		

ALL POSITIONS IN THE REFUGE SYSTEM
YCC AND YACC

	1971		1972		1973		1974		1975		1976		1977	
	YCC		YCC		YCC		YCC		YCC		YCC		YCC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
MISSOURI														
WILDLIFE RF														
MINGO							4	20	4	20	5	30	6	30
SQUAW CREEK											4	16	4	16
SWAN LAKE											4	20	4	20
MONTANA														
WILDLIFE RF														
CHARLES M RUSSELL											4	16	4	16
NATIONAL BISON RANGE														
NEBRASKA														
WILDLIFE RF														
FORT NIOBRARA											4	20	4	20
NEVADA														
WILDLIFE RF														
DESERT GAME RANGE	4	20	4	20	4	20					4	20		
NEW JERSEY														
WILDLIFE RF														
BRIGANTINE			4	20	4	20	4	20	4	20	4	20	4	20
GREAT SWAMP											4	20	4	20
NEW MEXICO														
WILDLIFE RF														
BITTER LAKE											8	20	8	20
BOSQUE DEL APACHE													11	34
LAS VEGAS											8	20	8	20

	1978				1979				1980				1981			
	YCC		YACC		YCC		YACC		YCC		YACC		YAC		YACC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
MISSOURI																
WILDLIFE RF																
MINGO	6	30	21	415	6	30	21	476			4	21	4	20	1	4
SQUAW CREEK	4	18		10	4	18		9	4	20						2
SWAN LAKE	4	20			6	30										1
MONTANA																
WILDLIFE RF																
CHARLES M RUSSELL	8	20		10	8	16		12								2
NATIONAL BISON RANGE				3				3	4	20			5	25		
NEBRASKA																
WILDLIFE RF																
FORT NIOBRARA	7	30			7	30			6	31			6	35		1
NEVADA																
WILDLIFE RF																
DESERT GAME RANGE	4	20		15	4	20		33	5	24			5	26		
NEW JERSEY																
WILDLIFE RF																
BRIGANTINE	4	20		9	4	20		19					3	14		1
GREAT SWAMP	4	20	1	17	4	20	1	19	4	20			4	20		2
NEW MEXICO																
WILDLIFE RF																
BITTER LAKE	10	30		22	8	20		22	10	30						6
BOSQUE DEL APACHE	10	30	2	25	10	30	2	30	10	30			12	30	2	10
LAS VEGAS	14	30		12				13								1

ALL POSITIONS IN THE REFUGE SYSTEM
YCC AND YACC

	1971 YCC		1972 YCC		1973 YCC		1974 YCC		1975 YCC		1976 YCC		1977 YCC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
NEW YORK														
WILDLIFE RF														
IROQUOIS			3	14	3	14	3	14	3	14	3	14	8	24
MONTEZUMA	4	20	4	20	4	20	5	24	5	24	5	24	5	24
NORTH CAROLINA														
WILDLIFE RF														
MATTAMUSKEET											4	20	4	22
PEE DEE											6	30	6	28
NORTH DAKOTA														
WILDLIFE RF														
NORTHERN PRAIRIE														
DEVILS LAKE														
SULLEY'S HILL									4	20	4	20	4	20
OHIO														
WILDLIFE REFUGES														
OTTAWA											8	24	8	24
OKLAHOMA														
WILDLIFE RF														
SALT PLAINS														
SEQUOYAH											10	34	11	30
TISHOMINGO											10	30	10	30
WASHITA														
WICHITA MTNS													6	30

	1978				1979				1980				1981			
	YCC		YACC		YCC		YACC		YCC		YACC		YAC		YACC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
NEW YORK																
WILDLIFE RF																
IROQUOIS	4	20		14	4	20		16	4	20			4	20		5
MONTEZUMA	3	14		9	3	14		16	3	14			3	14		3
NORTH CAROLINA																
WILDLIFE RF																
MATTAMUSKEET	5	26			5	25			2	15			4	20	1	7
PEE DEE	6	28			6	28			2	15			3	15		3
NORTH DAKOTA																
WILDLIFE RF																
NORTHERN PRAIRIE	2	10		4	2	10		8								
DEVILS LAKE																
SULLEY'S HILL	4	20		1	4	20		13	4	20			4	20		10
OHIO																
WILDLIFE REFUGES																
OTTAWA	8	24	7	90	5	24	7	131	8	24			8	22		1
OKLAHOMA																
WILDLIFE RF																
SALT PLAINS	8	20		10	8	20		10	8	20			4	20		3
SEQUOYAH	8	20	2	20	4	20	2	20	5	26			4	20	2	14
TISHOMINGO	10	30	5	35	10	30	5	62	3	20			4	22		2
WASHITA	4	20		10				11	3	14			4	20		4
WICHITA MTNS	10	30	2	20	6	30	2	35	4	20			4	22	2	14

ALL POSITIONS IN THE REFUGE SYSTEM
YCC AND YACC

	1971		1972		1973		1974		1975		1976		1977	
	YCC		YCC		YCC		YCC		YCC		YCC		YCC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
OREGON														
WILDLIFE RF														
MALHEUR													4	18
UMATILLA														
WILLIAM F. FINLEY											10	30	11	32
PENNSYLVANIA														
WILDLIFE RF														
ERIE													4	20
TINICUM MRSH ENVIRN CNTR											4	20	4	20
RHODE ISLAND														
WILDLIFE RF														
TRUSTOM POND											3	14	3	14
NINIGRET														
SALT MEADOW											3	12	3	12
SOUTH CAROLINA														
WILDLIFE RF														
CAROLINA SANDHLS											5	26	6	28
SANTEE							4	20	4	20	5	25	4	24
SOUTH DAKOTA														
WILDLIFE RF														
LACREEK														
TENNESSEE														
WILDLIFE RF														
HATCHIE														
TENNESSEE							4	20	4	20	4	20	4	20

	1978				1979				1980				1981			
	YCC		YACC		YCC		YACC		YCC		YACC		YAC		YACC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
OREGON																
WILDLIFE RF																
MALHEUR	4	18		8	4	18		16					4	20		
UMATILLA	4	18		7	3	18		7	4	21			4	21		
WILLIAM F. FINLE	14	32		12	14	32		34	12	32			8	30		2
PENNSYLVANIA																
WILDLIFE RF																
ERIE	4	20	1	10	4	20	1	25	4	20			4	20	1	7
TINICUM NEC	4	20		21	4	20		31	3	20			4	20		1
RHODE ISLAND																
WILDLIFE RF																
TRUSTOM POND	3	14		1	3	14		5	2	14			2	14		2
NINIGRET			1	10			1	10							1	10
SALT MEADOW	6	12			3	12			2	12			2	12		
SOUTH CAROLINA																
WILDLIFE RF																
CAROLINA SANDHLS	10	30		1	10	30		4	2	15			6	30		2
SANTEE	4	24	1	10	5	24	1	11	3	15			3	15	1	7
SOUTH DAKOTA																
WILDLIFE RF																
LACREEK	3	16		8	3	16		8								
TENNESSEE																
WILDLIFE RF																
HATCHIE				8	4	20		8	2	10			2	10		2
TENNESSEE	4	20		1	4	20		7	3	15						2

ALL POSITIONS IN THE REFUGE SYSTEM
YCC AND YACC

	1971 YCC Staff	1971 YCC Enrol.	1972 YCC Staff	1972 YCC Enrol.	1973 YCC Staff	1973 YCC Enrol.	1974 YCC Staff	1974 YCC Enrol.	1975 YCC Staff	1975 YCC Enrol.	1976 YCC Staff	1976 YCC Enrol.	1977 YCC Staff	1977 YCC Enrol.
TEXAS														
WILDLIFE RF														
BRAZORIA											4	20	3	10
ANAHUAC											8	20	8	20
ARANSAS											10	40	10	40
LAGUNA ATASCOSA	5	25	5	25	5	25	4	20	4	20	8	40	6	30
SANTA ANA											4	20	4	20
ATTWATER PRAIRIE											10	40	8	30
BUFFALO LAKE											10	30		
HAGERMAN													8	20
MULESHOE														
UTAH														
WILDLIFE RF														
BEAR RIVER														
OURAY														
VERMONT														
WILDLIFE RFU														
MISSISQUOI											3	12	3	12
VIRGINIA														
WILDLIFE RF														
BACK BAY													3	12
CHINCOTEAGUE											3	14	6	24
DISMAL SWAMP											4	20	4	20

	1978				1979				1980				1981			
	YCC		YACC		YCC		YACC		YCC		YACC		YAC		YACC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
TEXAS																
WILDLIFE RF																
BRAZORIA				10				20								3
ANAHUAC	8	20		6	8	20		5	3	20			4	24		4
ARANSAS	10	40			10	40			4	20			4	22		
LAGUNA ATASCOSA	8	20	3	21	8	20	3	42							3	16
SANTA ANA	4	20	10	120	4	20	10	150			14	74			8	56
ATTWATER PRAIRIE	4	20		2	4	20		3	2	16			4	20		6
BUFFALO LAKE				16						16						3
HAGERMAN	8	20		7	8	20		14	2	14						
MULESHOE	4	20		3	4	20		6	2	10			2	10		
UTAH																
WILDLIFE RF																
BEAR RIVER			1	15			1	16			4	20			1	7
OURAY	4	20		1	4	20		3	8	20						
VERMONT																
WILDLIFE RFU																
MISSISQUOI	3	12	1	7	3	12	1	14	2	12			2	12	1	7
VIRGINIA																
WILDLIFE RF																
BACK BAY	3	12	3	35	3	12	3	40	2	12	12	69	3	14	3	20
CHINCOTEAGUE	5	24	1	10	4	24	1	20	3	14			3	14	1	7
DISMAL SWAMP	4	20	2	20	4	20	2	30	2	12			4	20	2	10

ALL POSITIONS IN THE REFUGE SYSTEM
YCC AND YACC

	1971		1972		1973		1974		1975		1976		1977	
	YCC		YCC		YCC		YCC		YCC		YCC		YCC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
WASHINGTON														
WILDLIFE RF														
COLUMBIA														
MCNARY													4	18
NISQUALLY											4	16	4	20
LOWER COLUMBIA											3	16	3	16
TURNBULL							5	25	5	25	6	20		
WISCONSIN														
WILDLIFE RF														
HORICON											4	20	4	20
NECEDAH							4	20	4	20	4	20	4	20
TREMPEALEAU DIST.											5	24	5	24
WYOMING														
WILDLIFE RF														
NATIONAL ELK			8	24	8	24	8	24	8	24	8	24	8	24
SEEDSKADEE														
PUERTO RICO														
WILDLIFE RF														
CABO ROJO														
TOTAL	61	240	88	358	88	358	141	577	145	599	427	1709	459	1800

	1978				1979				1980				1981			
	YCC		YACC		YCC		YACC		YCC		YACC		YAC		YACC	
	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.	Staff	Enrol.
WASHINGTON																
WILDLIFE RF																
COLUMBIA				5	3	10		6					6	31		6
MCNARY	4	23	1	7	3	12	1	10	2	10						
NISQUALLY	8	16		3	8	16		6	2	12			2	12		1
LOWER COLUMBIA				16				16								2
TURNBULL				1	5	24		9								1
WISCONSIN																
WILDLIFE RF																
HORICON	4	20		17	4	20		20	4	20			4	16		1
NECEDAH	5	24	1	10			1	16					3	16	1	10
TREMPEALEAU DIST.	4	20	1	10	4	24	1	15	4	20			4	16	1	7
WYOMING																
WILDLIFE RF																
NATIONAL ELK	6	18			6	18										
SEEDSKADEE	4	16		9	3	16		9	4	20						
PUERTO RICO																
WILDLIFE RF																
CABO ROJO			1	10			1	11	2	10			2	10	1	7
TOTAL	544	2664	135	1998	509	2072	208	2825	294	1377	105	629	340	1385	89	754

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	FISCAL 1973	FISCAL 1974	FISCAL 1975	FISCAL 1976	FISCAL 1977	FISCAL 1978	FISCAL 1979	FISCAL 1980	TOTAL
	0	0	0	0	0	0	0	0	0
BAKER ISLAND	0	0	0	0	0	0	0	0	0
HOWLAND ISLAND	0	0	0	0	0	0	0	0	0
JARVIS ISLAND	0	0	0	0	0	0	0	0	0
ROSE ATOLL	0	0	0	0	0	0	0	0	0
JOHNSTON ATOLL	0	0	9,600	9,600	9,600	9,600	8,650	10,150	57,200
MCFADDIN	0	0	0	0	0	0	0	34,793	34,793
SEA RIM	0	0	0	0	0	0	0	3,336	3,336
LOWER SUWANNEE	0	0	0	0	0	0	244	0	244
UPPER QUACHITA	0	0	0	0	0	0	0	20,880	20,880
MORGAN BRAKE	0	0	0	0	0	0	0	1,562	1,562
STATE TOTALS	0	0	9,600	9,600	9,600	9,600	8,894	70,721	118,015
ALABAMA									
CHOCTAW	10,784	10,450	7,132	8,178	8,584	9,611	8,348	9,216	72,303
EUFAULA	276,026	241,895	197,989	209,617	210,943	242,755	224,195	185,760	1,789,180
WHEELER	372,481	449,971	517,358	367,000	314,078	385,732	387,172	533,208	3,327,000
STATE TOTALS	659,291	702,316	722,479	584,795	533,605	638,098	619,715	728,184	5,188,483
ALASKA									
ALEUTIAN	10,755	20,380	21,533	15,665	21,895	20,863	15,514	18,799	145,404
WILLIAM O DOUGLAS NWR	1,733	2,497	2,627	1,806	892	886	2,000	2,464	14,905
CLARENCE RHODE	0	35,648	26,152	46,413	55,090	55,239	53,965	130,331	402,838
IZEMBEK	6,040	11,088	5,871	6,118	5,920	5,209	5,030	6,990	52,266
EAST ALEUTIAN ISLANDS	0	0	0	0	1,864	1,652	1,380	814	5,710
SEMIDI	0	0	0	0	0	194	0	0	194
KENAI MOOSE RANGE	116,004	148,847	133,260	103,080	115,729	141,165	146,459	171,351	1,075,895
KODIAK	21,834	29,331	23,574	22,014	26,843	25,942	25,853	26,213	231,604
STATE TOTALS	156,366	247,791	213,017	195,096	228,233	251,150	250,201	356,962	1,898,816
ARIZONA									
CIBOLA	7,390	5,685	8,695	10,021	13,305	17,940	20,567	54,578	138,181
HAVASU	0	0	0	0	175,477	168,186	162,239	502,458	1,008,360
IMPERIAL	31,211	35,550	28,540	31,000	31,100	44,427	44,856	17,135	253,819
KOFA	22,465	14,293	22,298	15,255	20,870	24,129	35,416	41,959	196,685
CABEZA PRIETA	735	955	1,156	933	705	1,382	786	3,612	10,264
STATE TOTALS	61,801	56,483	60,689	57,209	241,457	256,064	263,864	619,742	1,617,309
ARKANSAS									
BIG LAKE	47,889	28,625	28,763	28,738	40,138	15,977	48,397	71,387	309,914
FELSENTHAL	0	0	0	0	0	0	56,511	56,790	113,301
HOLLA BEND	17,682	25,894	24,144	35,006	38,786	34,713	19,791	25,457	221,473
WAPANOCCA	32,190	47,618	34,412	49,850	55,063	77,054	48,795	4,543	349,525
WHITE RIVER	99,943	158,179	129,632	225,152	162,003	142,210	139,034	124,828	1,130,981
STATE TOTALS	197,704	260,316	216,951	338,746	295,990	269,954	312,528	283,005	2,175,194
CALIFORNIA									
HUMBOLDT BAY	0	915	0	1,054	1,092	750	425	334	4,570
KERN	6,291	8,493	7,294	8,350	1,318	2,530	5,449	4,587	44,312

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	FISCAL 1973	FISCAL 1974	FISCAL 1975	FISCAL 1976	FISCAL 1977	FISCAL 1978	FISCAL 1979	FISCAL 1980	TOTAL
CALIFORNIA									
PIXLEY	0	0	0	0	0	0	0	8	8
SEAL BEACH	0	0	0	0	56	0	0	0	56
SACRAMENTO	18,720	18,734	17,351	18,913	19,072	19,504	16,162	20,084	148,540
COLUSA	5,279	4,998	5,884	5,668	5,577	5,258	6,818	10,236	49,718
DELEVAN	9,134	11,594	12,218	12,397	9,208	4,471	4,477	7,161	70,660
SUTTER	4,293	1,590	4,979	4,322	5,388	2,951	537	5,024	28,484
SALTON SEA	58,185	53,623	38,795	59,455	48,609	40,980	7,156	4,239	311,042
SAN FRANCISCO BAY	0	0	0	0	2	126	661	66,915	57,704
FARALLON ISLANDS	780	297	97	161	87	0	71	772	2,265
SALINAS RIVER WLD MG AREA	0	0	0	0	0	0	0	1,155	1,155
ELLICOTT SLOUGH	0	0	0	0	0	0	0	127	127
SAN PABLO	0	0	0	0	0	0	0	347	347
SAN LUIS	13,305	15,969	26,924	25,315	43,983	31,955	37,358	29,342	224,151
KESTERSON	4,539	3,729	4,732	4,875	4,491	150	5,210	4,579	32,305
MERCED	2,804	2,459	2,399	2,191	3,117	2,984	4,098	2,710	22,762
CLEAR LAKE	484	453	876	782	900	1,132	1,708	765	7,100
LOWER KLAMATH	44,145	47,312	67,030	81,175	140,678	164,230	154,584	148,188	847,342
TULE LAKE	39,311	27,604	199,367	224,486	220,682	213,960	202,940	179,611	1,337,961
MODOC	0	0	0	0	0	0	36,876	41,692	78,568
	46,224	73,482	46,659	29,520	19,525	38,936	0	0	254,346
HAVASU	164,545	236,495	291,863	173,748	0	0	0	0	856,651
STATE TOTALS	418,039	507,747	725,868	652,412	523,785	529,917	484,530	527,876	4,370,174
COLORADO									
ALAMOSA/MONTE VISTA COMPL	1,959	1,496	2,091	2,339	1,835	2,267	977	674	13,638
ARAPAHO	473	671	1,469	610	510	423	643	519	5,318
BROWNS PARK	0	0	0	0	0	0	3,420	3,975	7,395
MONTE VISTA	6,163	6,117	5,827	7,655	6,945	5,653	6,044	3,519	47,923
	4,082	4,190	4,448	5,410	3,575	3,950	0	0	25,655
STATE TOTALS	12,677	12,474	13,835	16,014	12,865	12,293	11,084	8,687	99,929
CONNECTICUT									
SALT MEADOW	38	507	688	448	569	400	701	900	4,251
STATE TOTALS	38	507	688	448	569	400	701	900	4,251
DELAWARE									
BOMBAY HOOK	53,637	61,088	59,404	73,724	72,158	54,630	41,779	45,340	461,760
PRIME HOOK	44,480	24,680	25,667	28,290	23,375	26,038	17,359	19,488	239,377
STATE TOTALS	98,117	85,768	85,071	102,014	95,533	80,668	59,138	64,828	671,137
FLORIDA									
CHASSAHOWITZKA	60,647	64,037	53,019	53,746	33,089	30,647	33,780	27,366	353,331
CEDAR KEYS	0	0	0	0	2,418	1,798	2,322	2,374	8,912
HOBE SOUND	72,015	76,904	70,022	83,357	77,912	86,089	63,735	107,398	637,432
J.N. "DING" DARLING	598,619	491,862	843,001	1,008,800	994,165	708,693	728,945	779,554	6,153,639
TAMPA BAY REFUGE	0	0	0	0	0	0	21,900	54,964	76,864
FLORIDA GULF COAST REFUGE	0	0	0	0	0	0	1,790	14,580	16,370
LAKE WOODRUFF	13,624	11,895	14,833	21,959	24,482	31,793	22,146	23,418	154,150
LOXAHATCHEE	309,690	321,659	281,168	302,139	304,305	305,169	284,299	297,258	2,407,687

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	FISCAL 1973	FISCAL 1974	FISCAL 1975	FISCAL 1976	FISCAL 1977	FISCAL 1978	FISCAL 1979	FISCAL 1980	TOTAL
FLORIDA									
MERRITT ISLAND	758,986	856,931	3,003,980	6,465,496	6,354,813	5,379,805	6,109,394	6,703,340	35,632,745
NATIONAL KEY DEER	284,884	76,005	123,785	63,713	75,315	336,000	52,118	48,441	1,060,261
PELICAN ISLAND	70,494	87,666	65,605	64,253	26,995	25,740	12,567	15,669	358,989
ST. JOHNS	867	1,798	856	0	0	195	321	514	4,551
ST. MARKS	170,127	126,884	104,712	79,996	38,444	195,107	151,081	171,655	1,038,006
LOWER SUWANNEE	0	0	0	0	0	0	0	3,807	3,807
ST. VINCENT	3,833	4,931	7,704	7,194	7,739	4,803	7,906	7,882	51,992
STATE TOTALS	2,343,786	2,120,572	4,568,685	8,150,653	7,936,677	7,105,839	7,494,304	8,258,220	47,918,736
GEORGIA									
OKEFENOKEE	197,106	280,763	255,885	299,223	375,143	338,161	289,382	347,133	2,382,796
PIEDMONT	10,547	13,097	13,017	11,864	10,747	10,893	7,318	17,611	95,094
TYBEE ISLAND	367	903	645	0	0	0	0	0	1,915
BLACKBEARD ISLAND	10,158	8,637	7,605	15,714	18,500	10,874	7,060	7,224	85,772
HARRIS NECK	7,865	10,347	9,272	9,651	9,070	7,135	2,413	308	56,061
WASSAW ISLAND	8,458	6,578	19,617	32,061	21,481	18,258	23,969	38,285	158,707
WOLF ISLAND	2,532	3,663	2,321	2,225	2,315	2,085	2,382	1,245	18,768
STATE TOTALS	237,033	323,988	308,362	370,738	437,256	387,406	332,524	411,806	2,839,113
HAWAII									
KILAUEA PT WILDL ADM SITE	0	0	88,355	95,555	169,849	108,010	141,342	126,612	729,723
HAWAIIAN ISLANDS	0	0	100	63	2,855	2,797	2,065	161	8,041
HANALEI	0	0	299,820	333,097	354,977	373,828	439,530	415,555	2,216,807
HULEIA	0	0	29,830	33,620	24,123	24,786	28,430	27,133	157,922
PEARL HARBOR	0	0	0	0	46	20	0	0	66
KAKAHAIA	0	0	0	70	120	405	675	1,320	2,590
OPAEULA	0	0	0	0	10	0	0	0	10
JAMES CAMPBELL	0	0	0	0	12	2	1	14	29
STATE TOTALS	0	0	418,105	462,405	551,992	509,848	612,043	570,795	3,125,188
IDAHO									
	1,955	3,287	1,155	1,670	1,780	1,998	0	0	11,845
DEER FLAT	189,085	132,957	191,815	323,995	224,940	140,098	61,362	154,445	1,418,697
SNAKE RIVER	6,321	7,090	8,248	8,160	9,240	7,214	2,872	2,942	52,087
	440	936	2,250	2,405	274	484	0	0	6,789
	3,801	5,126	5,427	4,164	3,073	2,409	0	0	24,000
KOOTENAI	2,812	2,802	2,173	2,642	3,781	2,817	3,365	5,370	25,762
	8,452	9,613	9,279	4,854	4,373	4,955	0	0	41,526
CAMAS	0	0	0	0	0	0	2,876	2,335	5,211
GRAYS LAKE	0	0	0	0	0	0	416	655	1,071
BEAR LAKE	0	0	0	0	0	0	586	807	1,393
MINIDOKA	0	0	0	0	0	0	5,284	4,095	9,379
STATE TOTALS	212,866	161,811	220,347	347,890	247,461	159,975	76,761	170,649	1,537,760
ILLINOIS									
SAVANNA DISTRICT	191,903	264,457	818,614	1,218,072	866,305	637,492	672,230	579,780	5,248,853
CRAB ORCHARD	1,580,121	1,519,999	1,320,058	1,178,000	1,171,630	1,046,275	1,145,551	1,090,460	10,852,094
MARK TWAIN COMPLEX	0	0	0	0	0	0	0	0	0
QUINCY HDQTRS	15	112	18	0	0	0	0	0	145

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	FISCAL 1973	FISCAL 1974	FISCAL 1975	FISCAL 1976	FISCAL 1977	FISCAL 1978	FISCAL 1979	FISCAL 1980	TOTAL
ILLINOIS									
GARDNER	22,228	20,983	12,958	7,345	6,808	3,528	3,935	4,472	82,257
CALHOUN	5,218	5,931	3,369	1,897	1,880	2,571	1,827	2,950	25,643
BATCHTOWN	3,091	3,362	1,953	1,825	1,476	2,527	2,335	2,176	18,745
GILBERT LAKE	7,193	5,704	952	1,685	1,481	680	457	3,395	21,547
KEITHSBURG	2,172	1,968	2,915	4,587	1,326	6,708	3,143	4,095	26,914
BELAIR	126	0	7	87	42	29	40	0	331
	89,039	105,397	98,177	76,410	40,400	41,191	0	0	450,614
	0	0	0	0	0	0	0	0	0
	0	0	0	0	67	0	0	0	67
CHAUTAUQUA	0	0	0	0	0	0	47,300	44,204	91,504
CAMERON UNIT	0	0	0	0	0	0	0	0	0
MEREDOSIA	0	0	0	0	0	0	0	0	0
STATE TOTALS	1,901,106	1,927,913	2,259,021	2,489,908	2,091,415	1,741,001	1,876,818	1,731,532	16,018,714
INDIANA									
MUSCATATUCK	17,123	18,290	45,912	64,232	42,583	45,658	52,587	46,507	332,892
STATE TOTALS	17,123	18,290	45,912	64,232	42,583	45,658	52,587	46,507	332,892
IOWA									
LANSING DISTRICT	211,416	206,300	188,200	196,900	241,000	272,774	266,353	296,116	1,879,059
GUTTENBERG DISTRICT	339,048	336,286	74,814	0	0	0	0	0	750,148
LOUISA	19,714	11,575	15,531	14,176	9,314	13,366	4,998	13,000	101,674
BIG TIMBER	4,718	5,932	7,804	6,443	6,748	12,726	10,920	14,946	70,237
DESOTO	327,397	354,034	354,462	350,085	380,040	355,602	242,415	368,672	2,762,707
UNION SLOUGH	10,752	33,089	29,713	29,905	16,295	46,026	28,988	23,590	218,358
STATE TOTALS	913,045	947,216	670,524	607,509	653,397	700,494	553,674	716,324	5,762,183
KANSAS									
FLINT HILLS	87,311	124,870	107,626	39,250	90,293	82,468	63,084	93,755	688,657
KIRWIN	121,140	95,600	78,362	111,070	113,066	87,976	68,291	52,470	727,975
QUIVIRA	11,361	10,058	4,979	5,000	4,807	4,639	4,780	4,006	69,630
STATE TOTALS	219,812	230,528	190,967	155,320	208,166	175,083	136,155	150,231	1,466,262
LOUISIANA									
CATAHOULA	10,698	16,220	16,215	8,920	16,950	14,220	13,845	24,075	121,143
D'ARBONNE	0	0	0	0	0	0	30,159	34,145	64,304
DELTA-BRETON	1,023	2,077	1,912	3,777	8,230	4,957	2,024	1,393	25,393
BRETON	0	12,000	1,575	2,750	3,980	3,465	1,190	1,512	26,472
LACASSINE	17,592	27,330	31,068	17,193	7,857	8,399	10,225	9,248	128,912
SABINE	49,730	60,152	62,728	61,881	56,925	50,982	36,651	35,095	414,144
STATE TOTALS	79,043	117,779	113,498	94,521	93,942	82,023	94,094	105,468	780,368
MAINE									
MOOSEHORN	34,389	24,938	26,846	23,867	24,428	23,460	18,944	23,360	230,232
CARLTON POND W.P.A.	825	722	688	471	659	651	589	621	5,226
RACHEL CARSON	0	28,960	0	0	0	8,655	12,685	12,700	63,000
STATE TOTALS	35,214	54,620	27,534	24,338	25,087	32,766	32,218	36,681	258,458

DO NOT TYPE BEYOND THE BLUE LINES

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	FISCAL 1973	FISCAL 1974	FISCAL 1975	FISCAL 1976	FISCAL 1977	FISCAL 1978	FISCAL 1979	FISCAL 1980	TOTAL
MARYLAND									
BLACKWATER	93,536	64,953	125,278	113,786	114,957	80,938	98,697	121,277	813,422
SUSQUEHANNA	649	1,875	3,030	1,763	1,166	555	0	0	9,038
MARTIN	1,564	1,730	3,825	500	60	0	0	0	7,679
EASTERN NECK	81,310	69,650	66,200	82,000	84,900	77,650	75,579	59,812	597,101
STATE TOTALS	177,059	138,208	198,333	198,049	201,083	159,143	174,276	181,089	1,427,240
MASSACHUSETTS									
GREAT MEADOWS	31,631	61,298	91,070	138,000	126,200	136,127	191,840	149,240	925,406
MONOMOY	8,900	10,715	10,313	45,935	38,976	26,170	31,609	26,045	198,663
OXBOW	0	0	1,360	1,210	1,170	4,674	7,475	4,495	20,384
NANTUCKET	0	0	0	0	3,311	1,085	3,445	1,840	9,681
PARKER RIVER	240,720	282,549	449,543	436,422	469,482	428,064	416,004	439,783	3,152,567
RACHEL CARSON	35,000	0	0	0	0	0	0	0	35,000
STATE TOTALS	316,251	354,562	552,286	621,567	639,139	596,120	650,373	621,403	4,351,701
MICHIGAN									
SENEY	76,986	89,622	94,409	72,235	72,578	113,730	97,479	75,879	692,918
SHIAWASSEE	10,450	8,507	11,904	7,432	11,183	8,674	20,353	37,784	116,287
STATE TOTALS	87,436	98,129	106,313	79,667	83,761	122,404	117,832	113,663	809,205
MINNESOTA									
AGASSIZ	14,880	13,085	13,114	23,797	21,996	24,615	16,628	9,671	137,786
RICE LAKE	11,334	14,881	14,205	19,551	16,526	16,827	16,893	11,120	121,337
SHERBURNE	32,463	47,268	56,455	57,630	65,888	94,740	60,702	50,994	466,140
TAMARAC	42,005	37,386	24,522	17,410	19,565	28,552	25,425	6,854	201,719
HEADQUARTERS DISTRICT	0	4,279	150	0	0	0	0	0	4,429
BENSON WETLAND MGT DIST	91,635	34,155	36,761	49,360	40,835	33,034	31,448	33,133	350,361
	5,835	16,491	25,945	44,052	72,635	71,952	0	0	236,910
ORTONVILLE W M D	37,476	90,214	74,376	67,765	57,630	72,000	0	0	399,461
FERGUS FALLS W.M.D.	13,280	7,977	13,302	13,600	11,753	19,755	31,944	27,192	138,803
DETROIT LAKES WET MGT DST	1,159	11,612	17,823	13,885	10,260	9,735	11,710	12,011	88,195
LITCHFIELD WMD	0	0	0	0	0	0	34,499	39,927	74,426
BIG STONE	0	0	0	0	0	0	37,353	48,629	85,982
STATE TOTALS	250,067	277,348	276,653	307,050	317,088	371,210	266,602	239,531	2,305,549
MISSISSIPPI									
BRETON	6,729	0	0	0	0	0	0	0	6,729
HILLSIDE	0	0	0	0	5,736	8,732	12,127	11,169	37,764
PANTHER SWAMP	0	0	0	0	0	0	0	9,452	9,452
MISSISSIPPI SANDHIL CRANE	0	0	0	0	0	0	76	0	76
NOXUBEE	33,950	29,920	36,624	31,050	40,310	41,286	31,927	28,718	273,785
YAZOO	6,336	5,625	5,668	9,518	7,215	11,887	13,744	14,424	74,417
STATE TOTALS	47,015	35,545	42,292	40,568	53,261	61,905	57,874	63,763	402,223
MISSOURI									
CLARENCE CANNON	2,470	462	93	1,928	1,751	796	1,180	411	9,091
MINGO	133,327	146,374	164,540	164,473	136,300	209,363	194,438	183,508	1,332,323
SQUAW CREEK	55,130	56,070	41,593	47,990	66,757	61,165	33,933	80,279	442,917
SWAN LAKE	133,430	92,417	104,491	112,136	51,055	116,472	97,977	75,332	783,310
STATE TOTALS	324,357	295,323	310,717	326,527	255,863	387,796	327,528	339,530	2,567,641

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	FISCAL 1973	FISCAL 1974	FISCAL 1975	FISCAL 1976	FISCAL 1977	FISCAL 1978	FISCAL 1979	FISCAL 1980	TOTAL
MONTANA									
BENTON LAKE	20,522	13,206	14,352	12,735	16,441	6,374	5,656	3,960	93,246
BENTON LAKE WMD	0	0	0	0	0	0	0	520	520
CHARLES M. RUSSELL	310,365	409,255	355,130	331,945	300,595	219,267	115,485	164,352	2,206,394
HAILSTONE	0	0	0	0	0	0	0	0	0
HALFBREED	0	0	0	0	0	0	0	0	0
LAKE MASON	0	0	0	0	174	208	108	631	1,121
LAKE MILLER	0	0	0	0	0	0	0	0	0
WAR HORSE	0	0	0	0	243	314	185	11	753
WILD HORSE	0	0	0	0	0	2,500	0	0	2,500
YELLOW WATER	0	0	0	0	7,275	6,419	1,432	36	15,162
UL BEND	1,053	900	500	617	550	505	20	0	4,145
MEDICINE LAKE	9,988	7,472	4,865	3,853	2,855	3,295	3,983	7,085	43,396
N.E. MONTANA WETLANDS	1,412	1,503	1,138	0	486	741	1,284	1,852	8,416
NATIONAL BISON RANGE	106,918	98,848	101,768	103,193	114,734	103,253	78,136	24,316	731,166
NINE-PIPE	6,495	3,051	2,297	2,619	3,740	4,471	5,634	5,473	33,780
PABLO	827	722	556	787	1,548	1,673	2,177	970	9,260
SWAN RIVER	0	330	393	655	368	403	157	330	2,636
N.W. MONTANA WETLANDS	1,734	1,797	3,770	4,896	5,579	4,933	4,461	2,587	29,757
	16,072	0	0	19,312	23,132	24,710	0	0	83,226
RED ROCK LAKES	13,449	11,400	8,677	13,161	19,953	10,542	7,240	5,883	90,305
BOWDOIN	6,670	3,756	3,957	4,736	5,273	2,784	1,890	1,947	31,013
STATE TOTALS	495,505	552,240	497,403	498,509	502,946	392,392	227,848	219,953	3,386,796
NEBRASKA									
CRESCENT LAKE	1,446	2,184	1,736	1,721	1,518	1,918	1,520	1,298	13,341
NORTH PLATTE	0	0	0	0	0	0	0	0	0
FORT NIOBRARA	59,739	86,396	86,183	96,554	88,189	95,335	79,442	54,420	646,258
VALENTINE	16,189	17,463	25,890	16,304	6,853	2,945	4,417	4,694	94,755
HASTINGS WMD	21,030	35,456	24,551	27,322	26,296	16,570	13,485	12,615	177,325
STATE TOTALS	98,404	141,499	138,360	141,901	122,856	116,768	98,864	73,027	931,679
NEVADA									
DESERT NW RANGE	16,770	23,015	20,822	23,145	25,367	23,763	22,053	18,613	173,548
PAHRANAGAT	5,757	5,562	7,623	17,163	8,534	9,790	4,442	3,140	62,011
RUBY LAKE	36,562	42,645	29,645	45,260	51,675	42,880	50,469	62,599	361,735
STILLWATER	23,499	34,036	32,348	38,225	29,119	19,400	36,553	35,061	248,241
ANAHO ISLAND	701	10	0	0	0	0	0	0	711
CHAS SHELDON	0	0	0	0	0	0	52,576	4,765	57,341
	415	195	400	1,220	0	0	0	0	2,230
	4,629	4,587	5,867	9,445	15,202	19,552	0	0	59,282
STATE TOTALS	88,333	110,050	96,705	134,458	129,897	115,385	166,093	124,178	955,099
NEW HAMPSHIRE									
WAPACK	2,480	0	0	0	0	0	0	0	2,480
STATE TOTALS	2,480	0	0	0	0	0	0	0	2,480

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	FISCAL 1973	FISCAL 1974	FISCAL 1975	FISCAL 1976	FISCAL 1977	FISCAL 1978	FISCAL 1979	FISCAL 1980	TOTAL
NEW JERSEY									
BRIGANTINE	147,035	146,681	164,689	168,504	159,650	151,058	149,254	170,319	1,257,190
BARNEGAT	4,360	4,160	4,150	4,542	7,108	8,950	8,887	9,466	51,623
GREAT SWAMP	224,799	158,906	198,214	208,126	233,942	376,685	298,254	232,142	1,931,069
STATE TOTALS	376,194	309,747	367,053	381,172	400,700	536,694	456,395	411,927	3,239,882
NEW MEXICO									
BITTER LAKE	24,086	23,080	22,565	24,902	23,644	29,433	23,829	33,766	205,305
BOSQUE DEL APACHE	19,126	25,403	31,195	54,581	42,098	101,903	65,207	76,426	415,939
SAN ANDRES	666	262	0	1,051	1,508	60	116	0	3,663
SEVILLETA	0	0	0	95	42	10	15	27	189
LAS VEGAS	13,606	9,784	11,481	9,770	13,969	6,363	377	3,069	66,419
MAXWELL	6,471	8,666	11,017	10,124	3,385	10,009	12,608	8,717	70,997
STATE TOTALS	63,955	67,195	76,258	100,523	84,646	145,778	102,152	122,005	762,512
NEW YORK									
IROQUOIS	166,622	89,497	94,790	140,400	67,107	98,050	86,889	111,807	855,162
MONTEZUMA	109,108	113,667	152,232	272,263	263,096	199,751	222,205	285,989	1,618,311
TARGET ROCK	8,247	10,322	7,388	5,454	5,444	5,151	6,455	7,002	55,463
AMAGANSETT	200	1,250	0	0	0	0	0	0	1,450
OYSTER BAY	13,130	13,880	0	0	0	0	0	0	27,010
MORTON	15,563	18,374	15,629	13,146	0	0	7,825	13,095	83,632
STATE TOTALS	312,870	246,990	270,039	431,263	335,647	302,952	323,374	417,893	2,641,028
NORTH CAROLINA									
MATTAMUSKEET	536,221	514,702	357,120	308,433	175,245	206,420	111,833	68,403	2,278,377
CEDAR ISLAND	35,830	126,776	41,189	19,931	134,670	123,039	65,029	9,435	555,899
SWANQUARTER	57,513	34,612	43,127	39,367	23,640	21,040	18,628	22,685	260,612
PEA ISLAND	1,168,994	1,047,638	1,390,698	1,142,309	1,054,913	1,037,083	841,940	935,833	8,619,408
PEE DEE	33,336	22,914	1,849	4,267	2,345	2,357	3,403	6,830	77,301
PUNGO	15,700	14,632	20,250	30,330	32,030	38,430	33,715	23,660	208,747
STATE TOTALS	1,847,594	1,761,274	1,854,233	1,544,637	1,422,843	1,428,369	1,074,548	1,066,846	12,000,344
NORTH DAKOTA									
ARROWWOOD	25,167	14,820	13,133	18,711	11,154	11,496	1,586	1,139	97,206
CHASE LAKE	0	0	0	0	0	150	54	56	260
LONG LAKE	2,067	1,612	1,345	1,417	1,565	3,340	2,421	3,096	16,863
SLADE	42,219	0	0	60	625	1,519	521	967	45,911
ARROWWOOD W.M.D.	40,137	36,133	51,620	61,515	44,170	31,812	13,822	6,855	286,064
SLADE W.M.D.	0	0	0	0	0	0	1,171	4,274	5,445
VALLEY CITY W.M.D.	0	0	0	0	0	0	4,215	45,516	49,731
AUDUBON	1,939	1,722	1,412	1,237	1,385	1,427	1,997	2,952	14,071
AUDUBON W.M.D.	2,083	842	11,907	5,166	13,167	14,200	12,572	5,213	65,150
CROSBY W.M.D.	25,972	17,784	16,680	20,538	12,509	2,632	1,805	2,245	100,165
DES LACS	15,207	17,727	16,578	17,724	11,445	8,455	7,965	2,825	97,926
LAKE ILO	4,356	0	0	4,790	6,610	4,830	6,752	5,900	33,238
LOSTWOOD	2,004	0	0	1,270	759	631	765	883	6,312
LOSTWOOD W.M.D.	444	0	0	1,051	2,486	1,449	967	407	6,804
DEVILS LAKE W.M.D.	11,235	14,637	88,032	102,545	110,320	159,380	97,395	98,665	682,209
SULLY'S HILL NATL GM PRES	74,852	71,347	0	0	0	0	0	0	146,199

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	FISCAL 1973	FISCAL 1974	FISCAL 1975	FISCAL 1976	FISCAL 1977	FISCAL 1978	FISCAL 1979	FISCAL 1980	TOTAL
NORTH DAKOTA									
J. CLARK SALYFR	26,010	18,063	10,650	18,034	15,690	17,444	14,271	16,786	136,948
J. CLARK SALYER W.M.D.	1,557	0	0	0	0	910	6,610	3,660	12,737
KULM W.M.D.	25,387	25,350	14,215	24,320	20,300	12,835	11,350	17,575	151,332
TEWAUKON	14,180	11,167	6,404	3,700	7,492	4,175	2,915	9,070	59,103
TEWAUKON W.M.D.	6,341	5,764	2,073	870	3,300	4,607	10,969	9,268	43,192
UPPER SOURIS	96,714	91,018	50,088	65,818	63,159	33,078	45,220	78,407	523,502
STATE TOTALS	417,871	327,986	284,137	348,766	326,136	314,370	245,343	315,759	2,580,368
OHIO									
OTTAWA	41,228	51,138	66,169	79,377	67,707	99,150	73,722	51,506	529,997
STATE TOTALS	41,228	51,138	66,169	79,377	67,707	99,150	73,722	51,506	529,997
OKLAHOMA									
OPTIMA	0	0	0	0	165	42	23	0	230
SALT PLAINS	71,610	81,591	159,227	147,602	131,151	131,487	111,741	151,267	955,676
SEQUOYAH	101,269	130,283	113,041	83,769	49,184	50,834	71,061	72,477	671,918
TISHOMINGO	113,597	113,200	96,800	44,707	89,253	43,813	24,755	25,669	551,794
WASHITA	11,173	6,217	6,502	8,166	10,633	9,406	7,015	3,615	62,727
WICHITA MTS WILDLIFE REFG	1,049,971	954,192	624,676	886,705	906,176	836,807	974,310	899,029	7,131,866
STATE TOTALS	1,347,620	1,285,483	1,000,246	1,170,949	1,186,562	1,072,389	1,188,905	1,152,057	9,404,211
OREGON									
KLAMATH FOREST	3,642	1,871	4,081	6,091	5,667	4,300	2,730	5,705	34,087
UPPER KLAMATH	18,880	6,059	8,960	12,246	11,630	9,020	7,565	4,700	79,060
HART MOUNTAIN	0	0	0	0	0	0	20,265	21,164	41,429
LEWIS AND CLARK	0	3,347	4,039	6,180	5,927	4,382	4,314	3,949	32,138
MALHEUR	37,596	46,243	60,386	65,164	32,396	35,227	32,038	22,838	331,888
	12,569	19,592	8,182	10,130	12,632	7,550	0	0	70,655
UMATILLA	11,346	16,875	17,700	27,200	28,260	14,302	14,651	15,699	146,033
COLD SPRINGS	14,355	17,901	17,600	22,900	20,467	8,912	4,715	4,310	111,160
MCKAY CREEK	15,318	29,081	34,500	28,900	18,415	14,780	8,555	8,175	157,724
WILLIAM F. FINLEY	40,913	40,293	35,916	32,817	35,234	30,411	30,623	26,151	272,358
ANKENY	14,800	5,273	11,362	12,298	15,962	13,595	9,303	9,045	91,638
BASKETT SLOUGH	17,244	20,045	22,513	34,918	33,019	32,174	20,155	18,364	198,432
CAPE MEARS	3,240	4,680	4,616	5,045	7,003	7,432	6,689	11,422	50,127
OREGON ISLANDS	87,600	99,100	95,575	0	0	0	0	0	282,275
THREE ARCH ROCKS	0	0	0	0	0	0	0	0	0
STATE TOTALS	277,503	310,360	325,430	263,889	226,612	182,085	161,603	151,522	1,899,004
PENNSYLVANIA									
ERIE	36,121	46,307	45,550	40,400	26,195	17,875	17,411	16,814	246,673
TINICUM NAT'L ENVIRON CTR	0	0	3,660	3,117	12,237	11,748	19,122	33,112	82,996
STATE TOTALS	36,121	46,307	49,210	43,517	38,432	29,623	36,533	49,926	329,669
RHODE ISLAND									
NINIGRET	1,911	2,310	3,014	5,722	919	798	1,621	1,100	17,395
BLOCK ISLAND	0	0	0	0	2,760	3,640	4,140	6,345	16,885
SACHUEST POINT	24,040	112,592	81,964	13,957	62,934	23,687	67,918	91,175	478,267
TRUSTOM POND	0	0	1,970	13,297	12,323	12,598	13,135	12,313	65,636
STATE TOTALS	25,951	114,902	86,948	32,976	78,936	40,723	86,814	110,933	578,183

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	FISCAL 1973	FISCAL 1974	FISCAL 1975	FISCAL 1976	FISCAL 1977	FISCAL 1978	FISCAL 1979	FISCAL 1980	TOTAL
SOUTH CAROLINA									
PINCKNEY ISLAND	0	0	0	0	0	0	0	43	43
TYBEE ISLAND	0	0	0	490	285	385	1,155	1,818	4,133
SAVANNAH	27,372	24,668	13,026	11,501	11,173	27,988	40,837	28,951	185,516
CAPE ROMAIN	17,455	14,322	13,463	29,741	40,867	53,496	30,545	40,199	240,088
CAROLINA SANDHILLS	40,485	59,111	42,469	48,087	36,050	33,250	31,785	32,100	323,337
SANTEE	1,436,250	2,304,440	1,915,073	225,950	173,675	178,512	169,831	136,857	6,540,588
STATE TOTALS	1,521,562	2,402,541	1,984,031	315,769	262,050	293,631	274,153	239,968	7,293,705
SOUTH DAKOTA									
LACREEK	11,968	8,680	14,919	31,463	24,839	21,451	10,522	15,872	139,714
LAKE ANDES	12,060	4,635	8,000	5,286	2,524	678	998	1,173	35,354
LAKE ANDES W.M.D.	32,532	20,597	24,548	14,461	8,959	7,364	12,582	6,951	127,994
KARL MUNDT	0	0	0	0	0	0	62	0	62
MADISON W.M.D.	43,631	24,337	64,373	49,215	21,689	30,590	25,055	34,685	293,575
SAND LAKE	34,529	51,264	53,070	50,255	61,708	52,453	66,499	62,595	432,373
SAND LAKE W.M.D.	9,329	10,923	10,595	3,050	3,510	14,845	19,775	25,215	97,242
WAUBAY	38,580	64,863	43,835	27,698	38,397	41,049	33,607	25,634	313,663
WAUBAY W.M.D.	15,101	0	0	0	0	1,916	15,755	22,558	55,330
STATE TOTALS	197,730	185,299	219,340	181,428	161,626	170,346	184,855	194,603	1,495,307
TENNESSEE									
CROSS CREEKS	24,078	26,312	21,422	18,781	19,757	18,948	14,545	10,908	154,751
HATCHIE	11,201	9,119	8,447	10,674	15,504	11,279	9,493	10,026	85,743
REELFOOT	39,463	48,404	39,379	35,485	27,080	27,229	32,935	55,225	305,200
TENNESSEE	308,742	343,014	344,431	378,282	447,132	452,504	515,964	441,910	3,231,979
STATE TOTALS	383,484	426,849	413,679	443,222	509,473	509,960	572,937	518,069	3,777,673
TEXAS									
ANAHUAC	13,082	11,170	12,340	14,493	12,129	12,466	8,879	10,156	94,715
ARANSAS	74,491	84,980	122,988	135,527	149,921	173,335	157,593	94,691	993,526
BRAZORIA	959	4,868	3,583	5,338	5,286	5,411	3,664	3,459	32,568
SAN BERNARD	4,212	4,693	4,364	6,133	5,466	6,921	8,652	8,159	48,600
LAGUNA ATASCOSA	40,269	36,975	36,667	56,379	91,980	61,597	66,796	61,658	452,321
SANTA ANA	48,777	37,730	47,477	64,212	67,588	87,657	61,331	92,060	506,832
ATTWATER PRAIRIE CHICKEN	0	219	1,040	467	529	1,005	1,052	2,283	6,595
BUFFALO LAKE	131,306	40,361	16,195	23,421	22,801	76,017	74,476	31,971	416,548
HAGERMAN	45,532	35,800	28,650	49,800	113,953	145,503	147,678	48,561	615,477
MULESHOE	11,115	10,728	6,645	6,054	4,088	12,989	11,526	23,241	86,386
STATE TOTALS	369,743	267,524	279,949	361,824	473,741	582,901	541,647	376,239	3,253,568
UTAH									
BEAR RIVER MIGA BIRD REFG	25,884	22,729	21,974	20,909	29,908	31,786	26,756	23,415	203,361
	1,491	1,343	1,552	1,765	2,160	2,385	0	0	10,696
FISH SPRINGS	0	0	0	0	0	0	2,276	2,658	4,934
OURAY	1,503	922	1,254	30,193	1,727	1,057	2,454	1,741	40,851
STATE TOTALS	28,878	24,994	24,780	52,867	33,795	35,228	31,486	27,814	259,842

03-12-81

DEPARTMENT OF THE INTERIOR
U. S. FISH AND WILDLIFE SERVICE
NATIONAL WILDLIFE REFUGE SYSTEM
NUMBER OF VISITS

	FISCAL 1973	FISCAL 1974	FISCAL 1975	FISCAL 1976	FISCAL 1977	FISCAL 1978	FISCAL 1979	FISCAL 1980	TOTAL
VERMONT									
MISSISQUOI	4,315	1,085	7,376	8,970	9,396	8,042	8,731	4,430	52,345
STATE TOTALS	4,315	1,085	7,376	8,970	9,396	8,042	8,731	4,430	52,345
VIRGINIA									
BACK BAY	156,556	63,670	75,050	44,196	42,731	42,559	36,858	63,144	524,764
FISHERMAN ISLAND	221	444	659	0	0	0	284	333	1,941
PLUM TREE ISLAND	0	0	0	0	0	0	0	0	0
MACKAY ISLAND	14,764	19,900	23,750	32,625	31,750	27,603	23,180	39,519	213,091
CHINCOTEAGUE	955,114	1,109,073	1,062,078	1,077,211	1,195,450	1,221,499	1,432,964	1,450,768	9,534,157
DISMAL SWAMP	0	0	0	0	7,745	8,603	8,140	8,876	33,364
MASON NECK	446	1,883	8,312	15,173	16,568	8,346	10,144	5,413	66,285
MARUMSCO	0	3,644	7,675	5,315	8,935	15,650	17,555	15,300	74,074
FEATHERSTONE	0	0	0	0	0	0	0	0	0
PRESQUILE	7,550	3,969	3,381	3,925	2,569	1,821	1,684	2,352	27,251
STATE TOTALS	1,134,651	1,202,583	1,180,905	1,178,445	1,305,748	1,326,081	1,530,809	1,585,705	10,444,927
WASHINGTON									
COLUMBIA	124,285	91,995	104,331	99,007	138,203	126,934	215,660	73,262	973,677
SADDLE MOUNTAIN	0	0	0	0	0	0	0	0	0
MCNARY	18,265	11,920	13,475	9,927	10,747	9,983	10,626	0	84,943
TOPPENISH	3,530	13,967	10,307	16,041	3,233	2,983	2,542	0	52,603
CONBOY LAKE	4,699	3,901	4,235	0	1,075	1,543	1,384	0	16,837
NISQUALLY	0	0	0	0	7,375	5,550	7,275	12,491	32,691
DUNGENESS	0	88,212	31,500	0	62,550	69,800	76,900	72,733	401,695
SAN JUAN ISLANDS	0	65,755	30,800	0	64,125	59,900	48,468	64,027	333,075
RIDGEFIELD	0	20,480	7,653	11,830	11,181	11,369	11,614	11,335	85,462
WILLAPA	0	60,710	412,923	145,340	190,060	179,601	91,830	84,645	1,165,109
WASHINGTON ISLANDS	0	1,297,738	87,453	193,002	186,862	251,284	172,128	122,439	2,310,906
COLUMBIAN WHITETAILD DEER	0	8,541	7,367	5,175	6,698	7,688	8,059	8,596	52,124
TURNBULL	31,281	25,165	33,471	37,575	34,550	40,769	35,639	31,947	270,397
	23,000	0	0	0	0	0	0	0	23,000
	14,023	0	0	0	0	0	0	0	14,023
	4,376	0	0	0	0	0	0	0	4,376
STATE TOTALS	223,459	1,688,384	743,515	517,897	716,659	767,404	682,125	481,475	5,820,918
WISCONSIN									
HORICON	381,167	382,917	377,006	424,318	283,101	281,339	328,466	320,066	2,778,380
NECEDAH	63,946	79,165	74,121	98,667	93,083	70,960	85,433	87,773	653,148
WISCONSIN W.P.D.	0	0	0	9	1,435	1,855	1,700	3,325	8,324
TREMPEALEAU	245,584	316,805	296,704	520,400	463,060	577,590	586,203	495,037	3,501,383
LACROSSE DISTRICT	602,266	539,627	521,084	591,872	576,626	817,981	517,306	639,147	4,935,909
CASSVILLE DISTRICT	116,653	155,865	361,236	455,299	528,840	504,795	528,822	345,830	2,997,340
STATE TOTALS	1,409,616	1,474,379	1,630,151	2,090,565	1,946,145	2,254,520	2,147,930	1,891,178	14,844,484
WYOMING									
NATIONAL ELK REFUGE	192,872	337,366	150,260	429,284	404,488	298,132	425,908	431,484	2,669,764

DEPARTMENT OF THE INTERIOR
U. S. FISH AND WILDLIFE SERVICE
NATIONAL WILDLIFE REFUGE SYSTEM
NUMBER OF VISITS

	FISCAL 1973	FISCAL 1974	FISCAL 1975	FISCAL 1976	FISCAL 1977	FISCAL 1978	FISCAL 1979	FISCAL 1980	TOTAL
WYOMING									
BAMFORTH	21	43	32	0	0	0	0	0	96
HUTTON LAKE	441	775	642	390	147	137	161	204	2,897
PATHFINDER	5,407	18,828	5,585	0	0	0	0	0	29,820
SEEDSKADEE	22,188	18,524	24,492	20,981	10,406	17,195	10,235	1,999	126,020
STATE TOTALS	220,929	375,536	181,011	450,655	415,041	315,434	436,304	433,687	2,828,597
FINAL TOTAL	19,691,242	22,349,574	24,134,675	27,070,855	26,537,402	25,727,040	25,319,489	26,438,877	197,269,159

Mr. YATES. Based on what has been revealed here this morning, the two refuges which have the most number of visitors are Wichita and Okefenokee. I am rather shocked by the small number of people you have taking care of the enormous number of acres at Okefenokee.

Mr. HESTER. It is a large swamp. There are only two or three access points to the entire refuge.

Mr. YATES. That is fine. That is the kind of explanation I need. I want to find out why you have so few people taking care of it. You are saying it is a big swamp.

Mr. HESTER. Yes, and it does not require intensive management as some other areas might.

Mr. YATES. Then in your judgment 12 people can take care of all that acreage? Is that what you are saying?

Mr. HESTER. I think we have done an adequate job so far.

Mr. YATES. How do you know that? Have you been down there?

Mr. HESTER. Yes, I have.

Mr. YATES. Have you been on duty there for a while?

Mr. HESTER. No, sir.

Mr. YATES. When were you there?

Mr. HESTER. I was last there about a year ago.

Mr. YATES. How long did you stay there?

Mr. HESTER. One day.

Mr. YATES. One day?

Mr. HESTER. Yes.

Mr. YATES. Is one day enough to find out what kind of a job they are doing down there?

Mr. HESTER. We have other people in our system who have that responsibility.

Mr. YATES. Who has that responsibility?

Mr. HESTER. The refuge manager.

Mr. YATES. The refuge manager said everything was fine?

Mr. HESTER. I think every refuge manager feels he needs more people and more money.

Mr. YATES. If the refuge manager told you he needed more people and more money, how can you come to the committee and say everything is fine?

Mr. HESTER. Mr. Chairman, if we had more money and more people we could do a better job than we are doing today.

Mr. YATES. I am trying to find out the kind of job you are doing with the amount of money you have. Apparently what you are saying is that no matter what the refuge manager told you, you are doing a good job at Okefenokee. Is that a correct conclusion?

Mr. HESTER. It is a relative matter. I think we are doing a good job for the amount of money and manpower we have. We could do a better job if we had more resources.

Mr. YATES. What would be a good job at Okefenokee?

Mr. MYSHAK. From the standpoint of evaluating what goes on at the refuges, or with the entire wildlife resources with which I am associated, we conduct annual programmatic reviews where I, my two deputies, or a combination of us plus some Washington staff will go to the regions and to the field and into the area offices and conduct an evaluation.

We have not been at Okefenokee within the last year or two.

Mr. YATES. Who is "we"?

Mr. MYSHAK. Myself or one of my two deputies to conduct a programmatic review.

Mr. YATES. Mr. Hester says he was there for a day and found everything was fine.

Mr. MYSHAK. All of us were there on a visit. We had a directors' meeting in Florida a year ago. I am not disputing what Mr. Hester is saying.

Mr. YATES. I can understand that.

Mr. MYSHAK. My observation also was that everything appeared to be going well. However, through area office reviews of the refuge itself, through the reviews from the regional office out of Atlanta, in our meeting with all of these staffs during our annual reviews, the understanding we have is that they are doing what they consider to be an adequate job in meeting the needs of those resources and the public which visits.

Mr. YATES. Let's read from a report on the National Wildlife Refuge System from the Defenders of Wildlife [reading]:

> Just as we expect, the managers of refuges, want more money and more personnel. That is commonplace for every refuge.

I suppose you also would say that the Defenders of Wildlife would find fault with every refuge they looked at.

This is what the report says about Okefenokee.

> The residential buildings are little more than hazardous slums because of lack of funds. . . .

Would you agree with that?

Mr. MYSHAK. That is their interpretation.

Mr. YATES. Would you agree?

Mr. MYSHAK. No.

Mr. YATES. Are these buildings where your staffs are housed?

Mr. MYSHAK. Yes.

Mr. YATES. Are they good?

Mr. MYSHAK. I saw some of these facilities and they looked adequate.

Mr. YATES. Did you look at all the facilities?

Mr. MYSHAK. No, sir.

Mr. YATES. Did anybody look at all the facilities?

Mr. MYSHAK. All I can answer, Mr. Yates, is that we have not heard a complaint from Okefenokee in our office relative to housing facilities there. We have to abide by codes as well as anybody else in providing facilities for our employees.

SUWANEE RIVER SILL DAM SAFETY

Mr. YATES. Then we go on to say, "Vehicles and roads are in fair condition. The Suwanee River Sill Dam needs to be repaired as soon as possible." Would you agree with that?

Mr. MYSHAK. I cannot answer that question.

Mr. YATES. Why?

Mr. MYSHAK. I am not familiar with that project.

Mr. YATES. Who visited Okefenokee who can answer that question?

Mr. MYSHAK. It would have to be out of the area or regional office.

Mr. YATES. Did the area or regional office tell you anything about the dam? Has a complaint been made about the dam at any time?

Mr. MYSHAK. I am not familiar with the particular dam because there are numbers of dams there. I haven't the slightest idea as to which particular one you are talking about.

Mr. YATES. This is what somebody saw when somebody was down there. The problem that concerns me is whether or not the people you have down there in the central office on visit go down there long enough to know what is going on in Okefenokee.

Mr. MYSHAK. Mr. Chairman, I am informed that the Sill Dam, which is referred to, was repaired over a year ago.

Mr. YATES. So that is in good shape? This is a 1977 report. So you say that has been repaired.

The maintenance backlog amounts to $587,000 and construction needs amount to $590,000. Has maintenance been taken care of?

Mr. MYSHAK. Let me go to one other item, Mr. Chairman. In the years which have intervened since 1977 we have made significant investments in Okefenokee. I thought I had the figure but I do not.

DAM SAFETY INSPECTION

Mr. YATES. Somebody ought to know what is in your justification. I have page 261 here. You propose a dam inspection program. [reading]:

> Fish and Wildlife Service has over 250 dams associated with wildlife refuges, fish hatcheries, and research laboratories. In the event of failure, some of the dams have the potential for hazards to human life, significant damage to downstream areas, and loss of valuable fish and wildlife habitat. Many of the dams have received only cursory inspection since they were initially constructed. A systematic inspection of all dams is a necessary first phase of a comprehensive dam safety program.

You want to implement an inspection program for approximately 200 dams at a cost of $1,700,000. I assume that includes the Okefenokee Dam. Would you agree with that?

Mr. MYSHAK. All of it.

Mr. YATES. Will you or somebody take a look at Okefenokee Dam if you get the increase of $1,700,000?

Mr. SOKOLOSKI. That is correct.

Mr. YATES. This also states that: [reading]:

> Inspection of the dams will allow the Service to identify potential problem areas and to request funds to make repairs wherever appropriate.

Do you know whether this request for dam safety is being withdrawn under the new Reagan budget?

Mr. HESTER. I can say it is under consideration.

Mr. YATES. Did you recommend it or is this something that OMB has recommended?

Mr. HESTER. We discussed it as a possible tradeoff for other kinds of reductions.

Mr. YATES. Let me read again as to what you are trading off here. You have over 250 dams in your refuges and hatcheries. You say: [reading]:

> In the event of failure some of the dams have the potential for hazards to human life and significant damage to downstream areas, and loss of valuable fish and wildlife habitat.

Many of the dams have received only cursory inspection since they were initially constructed.

If that is true, why in the world would you ever trade it off?

Mr. **Hester**. I might mention that in our deliberations we have looked at the possibility of trading off some part of that, not necessarily all of those funds. If that were done, the amount which was retained, whatever amount that might be, would be used for those which have the most critical aspects.

Mr. **Yates**. How do you know which are the critical areas?

Mr. **Hester**. Primarily larger dams. The budget request includes inspection of small dams, dikes around refuges and things like that.

Mr. **Yates**. What are we supposed to do? The committee now is aware of a potential hazard to human life, significant damage to downstream areas and a loss of valuable fish and wildlife habitat as a result of the conditions at some of the dams.

You have requested a tradeoff for some of the dams. That would assume that you have not placed in that tradeoff any of the funds necessary for the protection of dams, damage to which might result under those conditions. Is that correct?

Mr. **Hester**. The amount we retain would be used to examine those dams which have the potential for the greatest damage.

Mr. **Yates**. In my judgment, then, we have to know a breakdown of those funds. We have to know what you retained and where.

Mr. **Hester**. I would think so.

DAM RISK CLASSIFICATION

Mr. **Yates**. What areas are being retained in order to protect human life and your refuges.

Mr. **Hester**. I would assume that would be very helpful.

Mr. **Yates**. Do we have that?

Mr. **Buterbaugh**. We have a list of all the dams on Federal Fish and Wildlife property.

Mr. **Yates**. How many dams are there?

Mr. **Buterbaugh**. Two hundred-plus.

Mr. **Yates**. This says over 250.

Mr. **Buterbaugh**. That is approximately correct, 250. Some of the dams are so small they are insignificant in terms of possibly causing damage.

Mr. **Yates**. Will they be a hazard to human life if they break or rupture?

Mr. **Buterbaugh**. Based on the classification process which came down through the Department, there are three categories, low, significant or high possibility of risk, with concern for risk to humans if something goes wrong.

We have taken a quick look, without professional expertise, on dam safety. We have taken a look at those criteria and classified those dams which appear either high, low or significant risk.

Mr. **Yates**. Who prepared the list on the basis of risk?

Mr. **Buterbaugh**. Our engineers, internally, within the Fish and Wildlife Service.

Mr. **Yates**. On the basis of field inspections?

Mr. BUTERBAUGH. On the basis of field inspection and our knowledge, not professional knowledge, on dam safety but based on the criteria.

The criteria listed are loss of life, none expected, that would be low risk. Loss of a few people is classified as significant. Loss of more than a few people is classified as high

This is a cursory or non-professional type look at all the dams that may cause significant loss.

Mr. YATES. How many such dams are there?

Mr. BUTERBAUGH. There are about 48 or so which come under the category of significant and about 10 under high. All the rest are low in this classification system.

Mr. YATES. And that classification system assumes there has to be some repair to those dams?

Mr. BUTERBAUGH. No. It identifies them. The money, then, is needed to hire the professionals, train them internally within the Service, to go out and look at those dams, starting with those which are high risk, to see whether they are in a condition where they might wash out in a few years or whether there is some problem with them. You cannot do it by looking at them. You have to actually do some work on the dam. It is quite expensive. It takes special kinds of expertise to do this. The funding is for that purpose. As far as we know none of these dams at this time are in danger of washing out and causing significant damage.

DAM INSPECTOR PROGRAM

Mr. YATES. Your justification states many of the dams received only cursory inspection.

Mr. BUTERBAUGH. That is right, because up to this point we have not had the opportunity or funding to do more than that.

Mr. YATES. Have you asked Congress for it?

Mr. BUTERBAUGH. $1.7 million is there for that purpose.

Mr. YATES. $1.7 million permits you to make an examination of 48 dams?

Mr. BUTERBAUGH. Yes, it should, based on cost estimates.

Mr. YATES. It states 200 dams for $1.7 million, based on $6,500 per dam. This is based on information provided by the Water Power and Resources Service. Who is that?

Mr. BUTERBAUGH. Formerly the Bureau of Reclamation. All of our technical assistance comes from the former Bureau of Reclamation.

Mr. YATES. Does this mean you have not asked to have an examination of these dams prior to this budget?

Mr. BUTERBAUGH. That is correct; we have not had time to complete this part of it.

Mr. YATES. Do you know of any damage to any of the 250 dams? Has there been any report to the Service by any of your inspector personnel to indicate the dams are in less than good condition?

Mr. BUTERBAUGH. Based on my personal knowledge, a number of these dams are in need of repair and maintenance. Whether or not they are safety hazards has yet to be determined.

You cannot just walk up to the dam, walk around and tell that. It takes detailed inspection, which we do not have the capability of performing.

Mr. Yates. How many of the 250 are in the category of where they are damaged and need repair?

Mr. Buterbaugh. I am guessing. This is a raw guess, that there might be 10 in the total system where our personnel showed concern. That is because of the age of the dam and looking at it.

Again this goes back to the Teton Dam. This whole program is based on that in an Executive Order.

DAM SAFETY POTENTIAL HAZARDS

Mr. Yates. You have earth dams in your system?

Mr. Buterbaugh. Almost all of these are earth dams. Most of them in our system are small dams. They have large acreages of water but the dams are only a few feet high. There are not large populations below them and we are not talking about a reclamation type of dam.

Mr. Yates. I am glad to know that. The thing that set up the alarm flag was the statement that in the event of failure some of the dams have a potential hazard to human life, loss of valuable fish and wildlife, and so on.

I can understand the loss of fish and wildlife if an earth dam breaks, even if it is shallow. I am concerned about potential hazard to human life.

Mr. Buterbaugh. I think in the case of most of our refuges it would be recreation-type use, fishermen, hunters, other people in the area, rather than many located in a large city. Some could cause significant damage based on criteria we were given.

Mr. Yates. If I understand your testimony correctly, and the reason I am pressing you on this is obvious, because ordinarily in view of the mandate that OMB gave you I would not want to jeopardize your position, but I want to know the amount of money which was reduced in your tradeoff with OMB from the $1.7 million.

Mr. Hester. From all the discussions I have had I would anticipate we would have a minimum of $700,000 left.

Mr. Yates. Divide that by 8,500. How many dams are being looked at?

Mr. Hester. That is an average cost figure.

Mr. Yates. I know that. That is the figure you gave us.

Mr. Hester. As Mr. Buterbaugh pointed out, the dams we would examine under a reduced amount would be starting with those we felt posed the greatest hazard.

Mr. Yates. You don't know how many so-called high risk dams you have?

Mr. Buterbaugh. Fifty-five significant and high. We feel $700,000 would be adequate to cover just those which are significant or high risk. It would not allow us to look at the other 200-plus which are in the low risk category. We can perhaps make a cursory examination.

Mr. Yates. Even though the breach of them might result in extensive damage?

Mr. Buterbaugh. If they are classified as low it would be difficult for them to do that because there would be no loss of life expected because there are no human structures present.

Economic loss would be minimal because areas below the dams are undeveloped and there are only occasional structures or agriculture. If it is qualified as low it meets those criteria.

Mr. YATES. As far as testimony to the committee is concerned, what if OMB knocks out the $700,000? Then you are in trouble.

Mr. BUTERBAUGH. We would not be in a position to perform any of the inspections.

Mr. YATES. Would you agree with that statement that there is a high degree of risk present and it should be the source of some concern?

Mr. BUTERBAUGH. Yes, sir.

Mr. YATES. You would agree with that?

Mr. BUTERBAUGH. Yes, sir.

YCC WORK ACCOMPLISHMENTS

Mr. YATES. We will look for that particularly when the OMB budget comes in.

Would you also try to find out the number of YCC people you had in each of those years and where they worked in terms of numbers?

Mr. SOKOLOSKI. Yes.

[Committee note—see page 67.]

Mr. YATES. What is your impression of the work done by YCC? What do they do for you?

Mr. HESTER. They work on national wildlife areas.

Mr. YATES. What do they do?

Mr. HESTER. They perform a number of jobs helping with maintenance of grounds and facilities primarily. We also have the YACC program.

Mr. YATES. That is not before this committee. That comes out of the Labor Department. That is another budget. We fund YCC. We have the impression that YCC does creditable work.

Mr. HESTER. That is right.

Mr. YATES. I am trying to find out what it does for you, whether it saves money, whether if they did not do the work the work would have to be done by contract, outsiders or by you.

Mr. HESTER. If they did not do it the work would not get done or it would have to be done by our other personnel.

Mr. YATES. What work do they do?

Mr. HESTER. Mr. Myshak and Mr. Buterbaugh can explain that.

Mr. AUCOIN. What is the YCC personnel number?

Mr. MYSHAK. YACC?

Mr. AUCOIN. What is the YCC number? Do you have that?

Mr. MYSHAK. One hundred ten camps in fiscal year 1980, with 1,865 youngsters in that program.

Mr. YATES. Do you know where they were hosted?

Mr. MYSHAK. In all 50 States.

Mr. YATES. I would like you to put into the record a more comprehensive statement as to what they did for you.

Mr. HESTER. Yes, sir.

Mr. YATES. And how they saved money for you, if they did.

Mr. HESTER. Yes, sir, they did.

[The information follows:]

YCC

The Youth Conservation Corps is a 6-8 week summer program for 15-18 year olds chosen by random selection from all areas of the population. Its objective is to accomplish needed conservation work on public lands, provide gainful employment for 15-18 year old males and females of all social, economic, ethnic and racial classifications and to develop in participating youth an understanding and appreciation of the Nation's natural environment and heritage. In order to accomplish these goals, the young people are employed at a minimum wage for 30 hours a week for eight weeks and receive 10 hours per week of environmental education.

The conservation of migratory birds, endangered species, and other fish and wildlife resources are the major responsibilities of the Fish and Wildlife Service. YCC enrollees assist in this conservation effort by improving wildlife habitat, clearing streams and channels, stocking fish, and banding waterfowl and other birds. During fiscal year 1980 these young people were paid $3.15 per hour. If the work were done by regular employees or contracted, it would have cost $6.10 per hour. Because of funding limitations within the Service, professional staff and skilled maintenance personnel often have to do unskilled work. With YCC enrollees available to undertake labor-intensive projects, these staff personnel are free to perform their professional wildlife management duties. In addition, much regular maintenance work cannot be accomplished with the limited Service staff. YCC accomplishes much of this work.

During the summer of 1980, 1,858 young people worked 30 hours per week for 8 weeks. It would have taken 214 regular employees one year to do the work previously scheduled for accomplishment by these young people. Salaries for the enrollees were $1,400,000. Salaries for regular staff to perform these duties would have been approximately $2,600,000. This represented a savings to the government of $1,200,000.

REFUGE SAFETY MANAGEMENT

Mr. YATES. The budget for the Office of the Secretary for the next fiscal year, on page 102, refers to wildlife management [reading]:

> Wildlife management is a major responsibility of the Department of the Interior. YCC enrollees assist in meeting this responsibility by improving waterfowl, fish, transfer operations; by the taking of fish and wildlife population surveys; and, through construction and maintenance of fish raceways and water fowl nesting facilities. In fiscal year 1979, wildlife habitat improvement efforts were carried out on 89,514 acres of Federal lands and waters. Representative examples of activities during the current year include the moving of fish from an established pond to a new lake, and the banding of wood ducks at Muscatatuck National Wildlife Refuge; the clearing of trees, brush, and debris with an eye to improving more than 10 miles of the Lake Erie shoreline and the 8,000 acres of wetlands managed by the Ottawa National Wildlife Refuge; and the locating and taking down information on bluebird nests, picking up dead ducks that died of botulism, banding ducks and running vegetation transects at the Horicon National Wildlife Refuge.

How many other kinds of risk do you have on the refuges than dams which the committee should be made aware of? Are there any?

Mr. MYSHAK. The only other area of potential threat to human safety that I can perceive would be the state of our other facilities, such as buildings, roads, and dikes.

Mr. YATES. You have interpretation centers where people visit. Are any of those in bad repair to the point they might be dangerous to people coming into them? Are there dangers in your campgrounds which would require campgrounds to be closed or rehabilitated?

What is the condition of the roads which tourists take as they come through the facilities? Are there areas of risk we should know about?

Mr. HESTER. We have safety and security people who look into that very matter for us. We currently have 16 people devoted to this effort.

Mr. YATES. Throughout the entire system?

Mr. HESTER. Yes. We spend $864,000 a year on safety and security.

Mr. YATES. What do 18 people do?

Mr. HESTER. Sixteen people.

Mr. YATES. What do 16 people do? How much of your total acreage can 16 people cover?

Mr. HESTER. They spend much of their time in training people such as managers of our facilities to be aware of these kinds of hazards.

Mr. YATES. Do they make the inspections?

Mr. HESTER. They do some inspection, yes.

Mr. YATES. How much inspection can they do? If they are training managers, how much time do they spend training managers and how much time do they spend looking at the condition of these refuges themselves?

Mr. HESTER. We depend primarily on the managers to do that. I do not have the actual number of inspections.

Mr. YATES. Should we not know that? What do your managers report with respect to dangers existing at these refuges?

Mr. MYSHAK. One response to the question you asked earlier relative to safety at these facilities, in our BLHP program, one of the first things given one of the highest priorities in the construction or rehabilitation work is safety. Safety is one of the uppermost priorities.

Mr. YATES. That is four years old. How much money did you spend for that program?

Mr. MYSHAK. To date in the BLHP program we received $180 million.

Mr. YATES. In the area of safety?

Mr. MYSHAK. This is total.

Mr. YATES. We are talking about safety.

Mr. MYSHAK. I could not break that out. I would have to supply it.

Mr. YATES. How much of the $180 million was for safety and risk? What did you tell the committee which justified the conclusion within that figure of funds to take care of safety and risk?

Mr. HESTER. Some was replacement of outmoded buildings or vehicles, bridges, dikes, and things of that nature.

Mr. YATES. All right. Do you have a report on how the money was spent?

Mr. HESTER. We can provide that.

Mr. YATES. Let's have a provision of that for the record.

[The information follows:]

CONSTRUCTION RELATED TO SAFETY

Reduction or elimination of safety hazards to employees and visitors was the predominant consideration in the Bicentennial Land Heritage Program. Deteriorated buildings, antiquated and unsafe power equipment, roads and trails with severe ruts and potholes were among the primary facilities rehabilitated or replaced due to safety hazards.

The Bicentennial Land Heritage Program funding eliminated the most severe safety problems. About 20 percent of the $180.3 million appropriated was related to safety. For example, about 50 percent of the new equipment category expenditures of $13.7 million related to employee safety. A similar portion of the public use facility rehabilitation or new construction expenditures of $10.7 million related to safety hazards. Also, about 40 percent of the rehabilitation or replacement of administrative and maintenance facilities expenditures of $59.6 million corrected a variety of safety risks.

Mr. YATES. Has that been upgraded since the bicentennial report to show additional risks and risk areas?

Mr. MYSHAK. We are still operating under that funding.

Mr. YATES. I know that, except you had completed a survey up to that time leading to the amount of money you requested for 1976 funding. Since that time you have been operating for an additional four years. Have any of those areas deteriorated to the point there are additional risk areas?

Mr. MYSHAK. I would imagine there are.

Mr. YATES. So would I. What areas are they? What have your area managers told you? What did the Okefenokee manager tell you when you visited him last year? Did he tell you that any of the dams were high risk? Did he tell you the condition of the roads were bad? Were there risks? Did you just dismiss this as a manager's request for additional funds?

Mr. MYSHAK. One statement on safety surveillance. Each year as part of the budget exercise the regions have to submit all construction requests through the regular budgetary process. It ultimately ends up in one of the five different program area offices. In this case the two principal focuses are in the wildlife and fisheries programs. We will provide the other information.

[The information follows:]

REMAINING SAFETY RISKS ON REFUGES

To our knowledge, there are no major safety problems on refuges. When safety problems are identified as a result of routine inspections they are identified as a result of routine inspections they are corrected using available operation and maintenance funding. Where major problems are uncovered, they are corrected through the budget process. For example, the fiscal year 1982 budget contains funding to evaluate all refuge dams and dikes that would threaten human life in the event of a failure.

Mr. YATES. Are there several high-risk people here?

Mr. MYSHAK. There are three program managers here who have responsibility for facilities. We review these requests which come in for construction and critically analyze them from the standpoint of safety and critical need for visitor use. Wildlife resource demands are also considered. These things are all carefully scrutinized all the way through to the Washington office.

ACCIDENTS ON REFUGES

Mr. YATES. How many accidents did you have on your refuges last year? Do you get reports of accidents?

Mr. MYSHAK. Yes.

Mr. YATES. By refuges?

Mr. MYSHAK. Major accident reports we get in Washington are usually deaths. We get those right away.

Mr. YATES. You get reports on the death of a tourist?

Mr. MYSHAK. Anybody, employee.

Mr. YATES. Did you receive any reports of deaths in the year 1980?

Mr. MYSHAK. One employee, yes.

Mr. YATES. One employee died?

Mr. MYSHAK. That I am aware of.

Mr. YATES. As a result of what?

Mr. MYSHAK. Aircraft accident.

Mr. YATES. He was flying an aircraft?

Mr. MYSHAK. No, he was not flying it. He was in an aircraft.

Mr. YATES. Was he on duty while in the aircraft?

Mr. MYSHAK. Yes.

Mr. YATES. Where was this?

Mr. MYSHAK. In Nevada.

Mr. YATES. On which refuge?

Mr. MYSHAK. On the Desert Refuge.

Mr. YATES. Do you have planes? Was he flying one of your planes?

Mr. MYSHAK. In a charter.

Mr. YATES. What happened?

Mr. MYSHAK. It is under investigation. I prefer not to——

Mr. YATES. This happened in 1980 and it is still under investigation?

Mr. MYSHAK. There is litigation associated with it.

Mr. YATES. Can you tell us off the record?

Mr. MYSHAK. Yes.

[Discussion off the record.]

Mr. YATES. This is the only death which occurred during 1980?

Mr. MYSHAK. I forgot about one. We had a youngster in one of our youth programs killed around Christmas time while operating a tractor.

Mr. YATES. Why was he operating a tractor?

Mr. MYSHAK. As part of work training.

Mr. YATES. Is this YCC?

Mr. MYSHAK. YACC.

Mr. YATES. How many injuries were reported during that year? That is the most recent full year you have, 1980?

Mr. MYSHAK. Yes.

Mr. YATES. How many injuries were reported during 1980?

Mr. HESTER. We do not have it with us.

Mr. YATES. Would you supply that information for us?

Mr. HESTER. Yes.

Mr. YATES. Also report the kinds of injuries which occurred.

[The information follows:]

INJURIES

A total of 305 work-related employee injuries and illnesses occurred in the Service during 1980. This represents a decrease of 27 percent in the Service's injury/illness rate from the previous year. A vast majority of these were minor in nature (cuts, bruises, scratches, sunburn, poison ivy, dermatitis, and inflamed joints), but there were some more serious types (heart attacks, fractures, hernias, and exposure to toxic agents). There was one fatality resulting from the accidental death of a backhoe operator.

The Service recorded only one visitor injury, a fatality, during 1980. This infortunate incident was the death of a child who wandered away from a group of visiting school children into a work area on a refuge and was crushed by a roadgrader blade which toppled over when she climbed onto it.

ANNUAL INJURIES IN THE SERVICE

Mr. YATES. Does anybody know the number of injuries you normally have during the year, if you can use the term "normally"? Does anybody know the number of accidents which occur in a particular year?

Mr. HESTER. We can obtain that.

[The information follows:]

EMPLOYEE ACCIDENTS

The average number of accidents per year for the period 1978–1980 in the Fish and Wildlife Service is 248. This figure includes all types of accidents (motor vehicle, aircraft, watercraft, fire, etc.).

The average number of employee injuries per year for the period 1978–1980 in the Fish and Wildlife Service is 359. This includes injuries from all causes, including those unrelated to "accidents" (muscle strains, poison ivy, sunburn, heart attacks, insect bites, bee stings, etc.) ranging in severity from minor injuries to fatalities.

Mr. YATES. Do you remember any accidents which occurred as the result of a failure at any of your facilities, a caving in, breach of a dam, or an incident of that type? There also might be a slippage or washout of a trail, or bad roads.

Mr. HESTER. Vehicles and airplanes, sir. I am sure there are others. Those are the ones I remember right now.

Mr. YATES. How many suits do you have filed by visitors to your camps who complain of accidents occurring as a result of facilities made available by the Government? Do you have any lawsuits? I am referring now to all of your facilities.

Mr. MYSHAK. I am not aware of any other than what might be the result of accidents.

Mr. YATES. Do you have a general counsel who can tell us that? Is he here?

Mr. HESTER. I don't think anybody here can answer that.

Mr. YATES. Let's get an answer to that, too.

[The information follows:]

TORT CLAIMS

During the past year, 86 tort claims totalling $59,700 were filed against the Service. All the claims were related to motor vehicle accidents, with the bulk being for property damage. None of the claims resulted from injuries to visitors.

LITTLE WHITE RIVER DAM

Mr. YATES. Somebody pays attention to the dams apparently. This is on page 219 [reading:]

> The Little White River Dam has several defects which must be corrected to continue to use it as a major water source for Lacreek NWR. This dam was inspected by the Corps of Engineers for compliance with the National Dam Safety Program.

How did they happen to do that? Did you ask them to do it?

Mr. MYSHAK. I don't know.

Mr. YATES. Who is your next expert, Mr. Hester?

[No response.]

Mr. YATES. [reading]:

> The sides of the dam are eroding and tree roots extend through the structure. The height also needs to be raised. The specific work listed under the description of the project was recommended by the Corps to correct deficiencies.

How did the Corps happen to look at that dam?

Mr. HESTER. The Service requested them to prior to the time WRPS was assigned inspection responsibilities.

Mr. YATES. How many dams constructed by the Corps are there on your properties?

Mr. HESTER. Not many, but I do not have a specific number.

[The information follows]

SERVICE DAMS

The Service has eight dams located on National Wildlife Refuges that were designed or constructed by the Corps of Engineers.

Arkansas

Levee A Dam, White River NWR.
Dry Lake Dam, White River NWR.
Floodway Dam (South end control structure), Big Lake NWR.
Ditch 8 Control Structure Dam, Big Lake NWR.
Diversion Structure Dam, Big Lake NWR.
North End Structure Dam, Big Lake NWR.

Illinois

Devils Kitchen Dam, Crab Orchard NWR.

Iowa

Desoto Lake Control Structure, Desoto NWR.

CLOSING REMARKS

Mr. YATES. I get the impression, and I hate to say this, that you are not well prepared for this hearing today. Perhaps we better postpone it and have you look at your justification again.

We will let you know when to return.

TUESDAY, MAY 5, 1981.

WITNESSES

F. EUGENE HESTER, ACTING DEPUTY DIRECTOR, FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR; ACCOMPANIED BY
RICHARD J. MYSHAK, ASSOCIATE DIRECTOR, WILDLIFE RESOURCES;
MICHAEL J. SPEAR, ASSOCIATE DIRECTOR, ENVIRONMENT;
RONALD E. LAMBERTSON, ASSOCIATE DIRECTOR, FEDERAL ASSISTANCE;
GALEN L. BUTERBAUGH, ASSOCIATE DIRECTOR, FISHERY RESOURCES;
ADAM A. SOKOLOSKI, ASSISTANT DIRECTOR, PLANNING AND BUDGET;
JAMES W. PULLIAM, JR., DEPUTY ASSOCIATE DIRECTOR, NATIONAL WILDLIFE REFUGE SYSTEM;
RICHARD N. SMITH, ACTING ASSOCIATE DIRECTOR, RESEARCH; AND
WILLIAM D. BETTENBERG, DIRECTOR OF BUDGET, OFFICE OF THE SECRETARY

OPENING REMARKS

Mr. YATES. Mr. Reporter, show the hearing coming to order.

This is a continuation of an earlier hearing in the appropriation for fiscal year 1982 on the appropriations for the Fish and Wildlife Service.

When we last met, the Fish and Wildlife Service had not yet received an approval from OMB of its revised budget for 1982.

That is now before us. It would appear that since we last met, you seem to have lost $42,588,000 in the Resource Management account. Is that about right?

You also lost $22,663,000 in the construction account. Is my conclusion correct?

Mr. HESTER. That's correct.

Mr. YATES. OK. What is going to happen to your programs as a result of the reductions?

Mr. HESTER. Mr. Chairman, if I might, I would like to present a brief statement which will summarize those changes.

Mr. YATES. All right.

Mr. HESTER. I am glad to be here again for this continuation. I would like to point out that the revised budget request for the Resource Management appropriation is $221.5 million, a reduction of $42.6 million from the January request and $4.1 million less than appropriated to date in fiscal year 1981.

We are proposing an increase of $3.8 million for operating and maintaining national wildlife refugees and $1.6 million for the same purpose at national fish hatcheries over the base.

These increases are of high priority, because rising costs of materials, supplies and labor over the past several years have necessitated deferral of normal cyclical maintenance of facilities such as water control structures, dikes, raceways, ponds, irrigation and pumping systems, as well as support facilities such as buildings, roads, fences and equipment. These must be addressed in fiscal year 1982 if we are to fulfill our stewardship responsibilities.

Operational costs such as fish food, electrical power, and other utilities have also been impacted by cost escalation.

Mr. YATES. These increases you have received will not be nearly sufficient to reflect the additional costs of inflation, will they?

Mr. HESTER. This will require a great deal of management on our part.

Mr. YATES. What do you mean, "management"? The answer to my question, then, is "yes." I say the increases you have received for the two accounts that you said were so important are not sufficient to reflect the increases to your expenses that inflation brought, isn't that correct?

Mr. HESTER. That is generally correct. We do feel we will get into questions of pay account and other adjustments that may be coming, also.

Mr. YATES. Are pay account increases a part of those two accounts, or separate?

Mr. HESTER. They are separate.

Mr. YATES. But that doesn't relate to what we are talking about now, does it?

We are talking about two operating accounts, aren't we?

Mr. HESTER. Yes, we are.

Mr. YATES. Are we talking about two very important operating accounts?

Mr. HESTER. Yes, we are.

DAM SAFETY FUNDING

Mr. YATES. We are talking about two accounts that require, from your statement, investment in significant amounts by the Federal

Government. I have the impression with respect to your dams and some of your ponds, that if you don't put it in, they are going to break

There's a possibility of their breaking, is that correct?

Mr. HESTER. We have a figure in here, an increased figure for dam safety that is included later, not in this right here.

Mr. YATES. Not in those?

Mr. HESTER. That's correct.

Mr. YATES. Do you have adequate funds allotted under the revised budget for dam safety?

Mr. HESTER. Yes.

Mr. YATES. That is an absolute yes, and that is of very great importance to this committee.

Mr. HESTER. I would like to point out that this is for the inspection of those dams. It is for the inspection of the dams that we consider to be the larger, more likely to be a risk. It is not an examination of all of the dams owned by the Fish and Wildlife Service.

Mr. YATES. What do you mean by, "It's for inspection of the dams considered to be a greater risk?" I suppose we ought to start out by referring to your revised justification on page 12, which is what you are talking about, implementation of a dam inspection program.

You say here:

> The original proposal was $1,700,000 to inspect 200 dams associated with the national wildlife refuges, hatcheries and research laboratories. The dams are classified on the basis of having low, significant, or high potential for hazard to human life or private property in the event of failure. With this revised request, only the 56 dams of high or significant potential for immediate hazards to human life or private property in the event of failure will be inspected, and repairs initiated if necessary and as feasible.

The remaining dam inspections—

> 56 from 200 leaves 144 * * * and repair costs will be deferred until future years. As far as is known, the remaining dams do not pose any immediate threat to human life or property.

You say, "as far as is known." What does that mean? How often have you inspected the remaining dams?

How do you know whether they present a risk?

Mr. HESTER. Some of those are very low dams. I would like to ask Mr. Buterbaugh to further answer the question.

Mr. BUTERBAUGH. The dams not included in the 56 would be less than six feet high, or the maximum storage would be less than 15 acre feet of water.

Also, under the criteria we use, they would not have any human habitation or any significant facilities below the dam. So we have eliminated all the dams that are small in size that would pose a risk.

Mr. YATES. One hundred and forty-four dams fit in that category?

Mr. BUTERBAUGH. Correct.

Mr. YATES. I suppose all 56 dams differ. But I take it from your statement that all of them are over six feet.

Mr. BUTERBAUGH. Yes. This would be a dam 25 feet or more in height from the natural base of the water bed and has an impounding capacity of more than 50 acre feet.

We are talking about the larger ones. Also, the significant or high-risk category deals with those that have human habitation below or significant facilities of some kind.

Mr. YATES. Have you inspected the 56 dams to determine their condition?

Mr. BUTERBAUGH. No, we have not. This funding is for the inspection. We have identified the dams only to the point of determining their risk and what level they would fit in, the size and general class that the dam would fit into.

This money is to contract with the Water and Power Resources Service, Department of the Interior, who are the experts on dam safety. We do not have experts internally to deal with dam safety, that is inspections of dams.

This money will be used to contract for inspection of these dams and provide the expertise to go out, do the work and give us a written report. Then we can develop a cost estimate on those that are unsafe and a list of priorities which we can bring back here.

Mr. YATES. How long will that take?

Mr. BUTERBAUGH. We are talking about at least one year.

CONDITION OF DAMS

Mr. YATES. Do you know the condition of all of the 56 dams?

Mr. BUTERBAUGH. We have a general idea, again, from more of a layman's perspective of the 56 dams.

In one case, we know that one of them needs to be repaired, and there is funding in the construction account for that in the 1982 budget.

Mr. YATES. Which one needs to be repaired?

Mr. BUTERBAUGH. The White River dam on the Lacreek refuge in South Dakota.

Mr. YATES. What would happen if that dam would break? Before I ask that question, what is the nature of the repair that has to be done? What is its condition?

Mr. MYSHAK. Mr. Chairman, this dam is principally being repaired to maintain water level. It poses no safety risk. It is to maintain water levels for waterfowl——

Mr. YATES. Then that doesn't fit the description that Mr. Buterbaugh just gave us. I assume that the 56 dams that he is talking about, which require inspection, present some kind of a risk.

Now, what you are saying is that the repair is just being made to maintain a water level. There is no risk then, is there, to human life or property, if your answer is right?

Mr. MYSHAK. That is what I stated, yes, sir.

Mr. BUTERBAUGH. The difference is that the dams may need repair for other than safety purposes. At many of them, the spillways are eroding.

There is not a risk that the core of the dam is going to wash out. They still need to be repaired for other purposes, so you will have a mixture.

That is one of the 56 for which there is already funding in the budget. Again, it is erosion of the spillway, more than it is safety.

It's not been inspected safetywise, as far as I know, in that kind of detail, to know whether there is a safety problem. Either way, it is going to be fixed.

Mr. Yates. The justification says it has several defects that must be corrected to continue to use it as a major water source for the national wildlife refuge. It's been inspected by the Corps of Engineers for compliance with the National Dam Safety Program.

How many of the 56 dams have been inspected by the Corps of Engineers for compliance with the National Dam Safety Program?

Mr. Buterbaugh. There would be two that have been inspected at this point.

BUFFALO LAKE DAM

Mr. Yates. Little White River and which is the other?

Mr. Buterbaugh. It would be on the Buffalo Lake Refuge in west Texas.

Mr. Yates. Is there a reason for the inspection by the Corps of Engineers for these two dams?

Mr. Buterbaugh. They were built by the Corps—at least one was built by them—Jim, maybe you want to answer that?

Mr. Pulliam. Buffalo Lake (Umbarger Dam) was a SCS project built back in the mid-1930s by PWA and WPA. There were a couple of dams built on the same design standards.

The spillway in the dam was incorrectly designed. The safety factor has to do with the design of the spillway, not so much the dam itself.

The Corps of Engineers and Bureau of Reclamation have inspected the dam. And we know that this does pose hazards—if that dam goes out with a full storage of water behind it, we know it poses potential safety problems to people and property downstream.

As a result, we have opened the gates and we are keeping that lake dry at the present time. We have looked at it on a preliminary basis. Right now, it looks like to replace that spillway, it would probably cost us in the neighborhood of $15 to $20 million.

Mr. Yates. If you don't replace the spillway, what happens to the refuge?

Mr. Pulliam. Well, the waterfowl are using other refuges, and lakes in the area. But basically, we are keeping the lake dry.

Mr. Yates. Does the fact that the waterfowl are using other refuges mean you don't have to repair the spillway of this dam?

Mr. Pulliam. There is a risk involved with that in the event we get a flash flood coming down through the watershed; we could not release all of the water through the water control structure.

There is a pipe that goes under the dam, for water control, that we keep open. In the event we can't let it out fast enough, it could overtop the dam and wash it out, plus all the water that has accumulated behind it. There is a potential for government liability.

Another problem is that the dam has been there since 1938. There are people downstream who have come to expect the protection the dam offers.

Mr. Yates. What protection does the dam offer?

Mr. Pulliam. It offers the protection from floods.

Mr. Yates. Then it is a flood control project.

Mr. Pulliam. Yes, it was built in the 1930s by PWA-WPA. We got it in the late 1950s.

Mr. Yates. Are you responsible for it?

Mr. **Pulliam**. That's correct.

Mr. **Yates**. If it's dry now, why are you responsible for a flash flood?

Mr. **Pulliam**. That is the reason we are keeping it dry, so we won't have water stored behind it in the event it washes out.

Mr. **Yates**. I still don't understand. If the waterfowl are using other refuges now, and the dam is dry, why do you have to fix the dam? Why not just leave things as they are now?

Mr. **Pulliam**. Because of the potential—in that part of Texas, the way rains come, you can get flash floods that would fill the lake very quickly.

Mr. **Yates**. I see. You mean the lake that is now dry—

Mr. **Pulliam**. Can fill up extremely fast.

Mr. **Yates**. Even though the spillway's open?

Mr. **Pulliam**. That's correct. Then if it goes out with water backed up behind it, you have additional potential for damage downstream.

Mr. **Yates**. Are you saying that you have to fix the spillway, even though the waterfowl don't need it?

Mr. **Pulliam**. That's correct. That is what we are wrestling with, Mr. Chairman. We haven't come to a final conclusion on that, but as far as the waterfowl management is concerned, it's extremely doubtful that it would be worth an investment on our part of $15 to $20 million to fix the spillway and dam.

Mr. **Yates**. Why don't you give it back to the Corps of Engineers if you don't need it for a refuge?

Mr. **Pulliam**. The Corps of Engineers never had it. The Soil Conservation Service originally managed the area.

Mr. **Yates**. Then give it back to the Soil Conservation Service and let them be responsible for it.

Mr. **Pulliam**. We could pursue that, but I doubt if SCS wants it back.

Mr. **Yates**. It looks like that repair has to be made in order to protect the people?

Mr. **Pulliam**. That is what it's beginning to look like, that's right.

Mr. **Yates**. Unless you knock down the walls of the dam.

Mr. **Pulliam**. Which we cannot do, either.

Mr. **Yates**. Why can't you? Is this an earth dam?

Mr. **Pulliam**. Yes, with a concrete spillway.

Mr. **Yates**. Your attorneys tell you what?

Mr. **Pulliam**. Our attorneys advise us because the dam has been there since 1938 and people downstream, toward Canyon, Tex., have come to expect the dam as protection, then, in fact, the Government is now responsible for continuing to provide that protection.

BUFFALO LAKE DAM REPAIR COSTS

Mr. **Yates**. Is there money in the budget for this?

Mr. **Pulliam**. No, there is not.

Mr. **Yates**. There is no money in the budget for this?

Mr. **Pulliam**. No money in the budget.

Mr. YATES. What do we do if the Congress approves Gramm-Latta? All of Texas is going to vote for Gramm-Latta, anyway, aren't they?

How much money do you need for that, $15 million?

Mr. PULLIAM. We estimate $15 million to $20 million.

Mr. YATES. By the time you get around to it, it will be more than that, won't it?

Mr. PULLIAM. The cost escalation is probably around 15 percent a year.

Mr. YATES. This is like the other programs the committee is faced with, where one department builds housing for the Indians and the other department doesn't put the money in for sanitation.

Now, did you ask for the money from OMB?

Mr. PULLIAM. Not yet, no, sir. The studies are ongoing.

Mr. YATES. Well, are you going to try it for a budget item? Or do you have to talk to Mr. Bettenberg first?

Mr. PULLIAM. That is part of the process.

Mr. YATES. Part of the process, or part of the problem?

Mr. PULLIAM. I said "process."

Mr. YATES. Mr. Bettenberg, what do you think, are you going to ask OMB for some money for this?

Mr. BETTENBERG. I think we would want to explore the options.

Mr. PULLIAM. That is precisely what we are doing, I might add.

Mr. YATES. You are exploring the options?

What choices do you have?

Mr. PULLIAM. The options become narrower every day.

Mr. YATES. Based on your explanation, I would think they do become narrower every day. I would think they would become narrower every minute.

Right now, they are very narrow. What choices does our committee have, except to approve it, if there is a possibility of loss of life?

Mr. PULLIAM. Mr. Chairman, I think this is symptomatic—

Mr. YATES. Is there any choice other than what you have described to the possibility of loss of life?

If they have a flash flood, there is the possibility of loss of life.

Mr. PULLIAM. There is a possibility, yes, sir.

Mr. YATES. What choice do we have, then? How can Mr. Bettenberg continue to explore the options, such as a reprogramming?

Mr. PULLIAM. That certainly is an option.

Mr. BETTENBERG. We have not examined it on the department level. From the testimony so far, I guess I would say that we would have to ask the question whether or not this shouldn't be the State of Texas' responsibility.

Mr. YATES. The State of Texas' responsibility?

Mr. BETTENBERG. And not the wildlife refuge.

Mr. YATES. Would you consider this to be the State of Texas' responsibility?

Mr. PULLIAM. Our attorneys also tell us that these are preliminary discussions, apparently we have considered surplusing the refuge. We can't keep water in it.

It is not worth putting $20 million into the dam, so we have considered declaring the refuge surplus. We understand the Federal Government cannot declare the refuge surplus so long as this unsafe dam is on the property.

We can't even give it away. We come back to my statement that our options are becoming more narrow every day. It is a dilemma, and it is the kind of thing that this is a very real potential in the entire dam safety program.

Once you discover the hazards, the costs for repairs could be astronomical.

Mr. YATES. How many such situations do you have in your 56 dams?

Mr. PULLIAM. That is the only one we are aware of, so far.

Mr. YATES. How many of them have you looked at recently?

Mr. PULLIAM. We have looked at Little White River and we have looked at Buffalo Lake.

Mr. YATES. What happened to the other 54?

Mr. PULLIAM. There is money in that 1982 budget for that.

DAM INSPECTION

Mr. YATES. Has anybody looked at them in 1981 or 1982 or 1979?

Mr. BUTERBAUGH. We have been identifying the dams, and again, from the criteria, in terms of the conditions, other than our own people being on the site, we don't have any information until we get the experts in to look at them.

Mr. YATES. Is it reasonable to assume there may be one or two others in the same condition as Buffalo Lake, or the White River Dam?

Mr. PULLIAM. We are not aware of them.

Mr. YATES. I know that. That is what troubles me, the fact that you are not aware of any.

But I am wondering whether there are any in existence where a breach of some kind could cause the water to spill out on people below. How do we get the answers to that question?

You are going to have a dam inspection program. How long will it take the Corps of Engineers to inspect those dams?

Mr. BUTERBAUGH. About a year or less, by the Water and Power Resources Service in the Department of Interior. It will not be done by the Corps.

Mr. YATES. That's the Bureau of Reclamation. No wonder I didn't recognize it. They don't come before us.

Mr. BUTERBAUGH. In answer to your question, it would be reasonable to expect that when we inspect the 56, that some of them are going to turn out to be defective in some shape or form that is going to require immediate correction.

Mr. YATES. I sit here and wonder why we didn't do this last year. Why weren't they inspected last year? Where there is a potential danger, shouldn't it be under almost continuous supervision?

Mr. BUTERBAUGH. This goes back to the Executive order, the Teton break a number of years ago. This is all spin-out on dams as a result of that break.

So this is a program being set up in the Federal Government to inspect all dams.

Mr. YATES. When was the Teton break, in 1976? Three years later, On October 4, 1979, there was a presidential memorandum directing all Federal agencies to adopt and implement the Federal guidelines for dam safety as prepared by the Ad Hoc Interagency Committee on Dam Safety, the Federal Coordinating Council for Science, Engineering and Technology.

Then the Secretary of the Interior Order No. 3048 to implement and assign responsibility for a Departmentwide dam safety program in accordance with the President's memorandum of October 4, 1979.

Then there is a proposal on May 5th for the implementation of a dam inspection program. You wanted to look at 200 dams in February. Now you want to look at 56 dams. You want $649,000 to do it.

How do you know you need $649,000 for this inspection?

Mr. BUTERBAUGH. We have met with the Bureau of Reclamation people.

Mr. YATES. This is what they say?

Mr. BUTERBAUGH. Right. We have an estimate of the type of a team that would be required to go out and inspect each of these dams, the government personnel, travel, and length of time.

It comes out to be about $8500 per dam. That is how we came up with the figure. It will vary considerably, but that is an average figure we have been given.

The team would be a civil engineer, mechanical engineer and geologist for each of the dams.

Mr. YATES. Are we lucky that the same thing that happened to Teton hasn't happened to any one of the 56 dams? Am I creating a strawman here?

Should I be as concerned as I am about the possible danger?

Mr. HESTER. Mr. Chairman, I might mention that most of the dams we have are relatively small.

Mr. YATES. That is true.

Mr. HESTER. In addition, a lot of them are in very isolated areas because they are built there for their wildlife values.

Mr. YATES. But he said you have 56 dams that are not in this situation.

Mr. HESTER. That are large enough.

Mr. YATES. That's right. I don't worry about your 154. Those are remote. We don't worry about the possibility of damage.

If there is a break there, it doesn't hurt the waterfowl, it doesn't hurt anybody else, apparently.

But here, you have 56 dams, by definition of Mr. Buterbaugh, that may cause problems. If there is a break like the Teton Dam, then you are in trouble, aren't you?

Mr. BUTERBAUGH. There is some human use—agriculture. There is some use below the dam that could be damaged by these dams going out.

NEED FOR REPROGRAMMING

Mr. YATES. I don't know what else we can do to expedite this. Is this something that should have been in the supplemental, rather than the regular budget? Why aren't you reprogramming this? Why aren't you looking for funds for reprogramming, rather than going through the normal channels?

In my own mind, if I were in charge of this program, I would like to get that inspection done tomorrow or the next day because of the possibility of damage. It may turn out that there is no possibility of damage, that all the dams are in very good shape, and there is no danger of a break.

But I would guess that there is one or two of them that need repair, wouldn't you, Mr. Buterbaugh?

Mr. BUTERBAUGH. It's very likely.

Mr. YATES. Why are we waltzing through this instead of asking for a reprogramming? Don't you think this would deserve a reprogramming, Mr. Bettenberg?

Mr. BETTENBERG. I guess——

Mr. YATES. I know you are looking for options, but wouldn't you think so?

Mr. BETTENBERG. Of course, we are not aware of them, but we don't think that there is any big hazard in any of those. Otherwise, I am sure there would be reprogramming.

Mr. YATES. How do you know? Nobody's looked at them for three years.

Mr. BETTENBERG. They have not had a thorough safety inspection.

Mr. YATES. When is the last time you looked at each of these dams?

Mr. BUTERBAUGH. In terms of a thorough safety inspection, we have not. In terms of our people seeing the dams on a daily basis and being near them, yes.

Mr. YATES. What can they see if they see them on a daily basis? Could they see cracks?

Mr. BUTERBAUGH. They could certainly see cracks, major erosion problems. Much of this could be observed by a layman. Of course, some of it cannot. That is what we are concerned about, making sure we have experts there to catch those instances where it is not obvious to a layman.

Mr. YATES. How big are these dams? Does your man walk around them to take a look? Is that part of his duties, to see the condition of the dam?

Mr. BUTERBAUGH. I am sure that it is. As part of their routine duties, they are in the area. Most are in refuges and water impoundments where there are routine patrols in the area. I am sure they look at the dams frequently, particularly since the Teton break and since the Department now is putting some emphasis——

Mr. YATES. Have you received any notification from any of your teams of a need for repair on any of the 56 dams?

Mr. BUTERBAUGH. Only on the two identified so far.

Mr. YATES. With respect to 54 of the dams, a fairly frequent inspection by your people on the scene has not resulted in any of them saying that these dams need repairs, is that correct?

Mr. BUTERBAUGH. That's correct.

Mr. YATES. I must say I would be surprised if it turns out that they didn't need repair. Is a record kept of the repairs made to these dams?

Mr. HESTER. Mr. Sokoloski.

Mr. SOKOLOSKI. I believe, sir, that as part of the regular rehabilitation and maintenance program of all facilities, both within the refuge system and other facilities, we keep a record of all expenditures for minor and major rehabilitation or construction. Some of those could be identified and classified as repairs.

Mr. YATES. Would you look at your records and advise the committee as to what your records show with respect to the funds expended for the maintenance or rehabilitation of those 56 dams?

Mr. SOKOLOSKI. We can provide that for the record.

Mr. YATES. All right, fine.

Include the location of each of those dams, and the height and acre feet of water each contains. You might also, if your files indicate, let the committee know whether there have been any reports from the refuges indicating that the repairs should take place promptly.

[The information follows:]

SERVICE DAMS

Known problems, as indicated in field reports, are included in the following list. None of these are of an immediate emergency nature, but may require consideration in the near future (1-3 years).

	Height	Acre Feet	Maint. Exp. ($000)		
State/Station/Dam	(ft)	(000)	1979	1980	1981
CALIFORNIA					
Modoc NWR					
Dorris Dam	19	11.5	0	0	0
(Control on outlet structure damaged by ice, making operation very difficult. The spillway is earthen and subject to serious erosion in the event of overflow.)					
GEORGIA					
Okefenokee NWR					
Detention Levee	9	325.0	639.0	0	0
ILLINOIS					
Crab Orchard NWR					
Little Grassy Dam	77	23.7	0	0	0
(Structure is presently deficient in emergency spillway capacity.)					
Crab Orchard Dam	40	72.5	0	0	0
(Deficient in emergency spillway capacity.)					
IOWA					
Desoto NWR					
Desoto Lake	12	7.4	0	0	0
MAINE					
Craig Brook NFH					
Craig Pond	7	1.3	0	0	0
Moosehorn NWR					
Bearee Flowage	5	0.3	0	0	0
MISSOURI					
Swan Lake NWR					
Levee 2	10	6.0	0	0	189.0
Levee 3	9	12.8	0	0	120.0
(Presently, a contract is being prepared for rehabilitation of both dams and water control structures.)					
Squaw Creek NWR					
South Levee	8	14.0	0	0	0
MONTANA					
C.M. Russel NWR					
Hailstone Dam	16	1.6	0	0	0

State/Station/Dam	Height (ft)	Acre Feet (000)	Maint. Exp. ($000)		
			1979	1980	1981
Medicine Lake NWR					
Lamesteer Dam	20	0.5	0	0	0
Homestead Dam	11	13.3	0	0	0
Dam #4	11	73.8	0	0	0
Bowdoin NWR					
Creedman Dam	19	2.1	0	0	0
Lake Thibadeau NWR					
Thibadeau Dam	16	3.3	0	0	0
Red Rock NWR					
Widgeon Dike	8	1.0	0	0	0
Diversion Dam	13	0.4	0	0	0
New York					
Iroquois NWR					
Oneida Dam	9	1.4	0	0	0
North Carolina					
McKinney Lake NFH					
McKinney Dam	22	0.4	0	0	0
North Dakota					
J. Clark Salyer NWR					
Dam 320	10	11.5	96.0	8.0	13.0
Dam 326	7	8.9	40.0	8.0	15.0
Dam 332	10	5.4	10.0	13.0	15.0
Dam 357	5	23.5	8.0	6.0	9.0
Tweaukon NWR					
North Bay Dam	9	6.2	0.2	.2	.1
Des Lacs NWR					
Dam 2	7	0.3	0.3	0.2	5.0
Dam 3	7	0.1	0	0.1	2.0
Dam 4	7	4.9	0.2	0.2	8.0
Dam 5	5	0.1	0.2	0	8.0
Dam 6	6	0.4	0.3	0.2	9.0
Dam 7	4	1.0	0.1	0	8.0
Dam 7A	7	1.8	0	0	0
Dam 8	6	0.3	0	0	0
Lake Ilo NWR					
Dun Center Dam	27	7.1	0.5	0.5	0.5
Devils Lake WMD					
Rock Lake Dam	6	3.0	0	0	0
Silver Lake Diversion	7	2.4	0	0	0
Strawberry L. Dam	9	1.3	0	0	0
Wood Lake Dam	8	0.1	0	0	0

State/Station/Dam	Height (ft)	Acre Feet (000)	Maint. Exp. ($000)		
			1979	1980	1981
Arrowwood NWR					
Sunburst Dam	10	0.1	0	12.0	8.0
Tomahawk Dam	8	0.3	1.0	0	0
Spring Water Lake Dam	4	.4	0	0	0
Upper Souris NWR					
Dam 41	17	3.6	2.2	0.2	0.2
Lake Darling Dam	31	112.1	0.1	0	0.5
Dam 87	16	1.3	0.3	0.1	0.5
Dam 96	12	2.9	0.5	0.1	200.0
Oklahoma					
Wichita Mtns. NWR					
Elmer Thomas Dam	48	15	0	0	0
(Needs rip-rap; some seepage)					
Lost Lake	25	0.1	0	0	0
(Some seepage, outlet needs repair)					
Comanche	33	0.6	0	0	0
(Some seepage)					
Oregon					
Basket Slough NWR					
Morgan Dam	17	0.2	0	0	0
(Some seepage, outlet works inoperable, gate control parts missing)					
Pennsylvania					
Erie NWR					
Pool 7	7	0.2	0	0	0
Pool 9	12	0.5	0	0	0
South Dakota					
Sand Lake NWR					
Columbia Dam	5	20.1	0	0	0
LaCreek NWR					
Dike 10	7	3.4	7.0	0	0
Virginia					
Harrison Lake NFH					
Harrison Lake Dam	10	0.4	0	9.0	5.0
(Some seepage)					

Mr. YATES. What else should we be talking about?

ALASKA FUNDING

Mr. HESTER. One of the items is the Alaska National Interest Lands Conservation Act and the responsibility the Service has for that.

Mr. YATES. Tell us about that.

Mr. HESTER. We have established nine new refuges and enlarged seven other refuges in Alaska.

Our revised budget includes an increase of $6.6 million for this purpose. I might point out, as compared to the original request of $13 million. So it is an increase, but not as large an increase as we were originally asking for.

Mr. YATES. This is a new statement by you, incidentally, isn't it?

Mr. HESTER. Yes. We did prepare a new statement.

Mr. YATES. I should put that into the record, then.

[The statement follows:]

STATEMENT OF F. EUGENE HESTER, ACTING DEPUTY DIRECTOR, FISH AND WILDLIFE SERVICE, U.S. DEPARTMENT OF THE INTERIOR, BEFORE THE HOUSE SUBCOMMITTEE ON APPROPRIATIONS FOR THE DEPARTMENT OF INTERIOR AND RELATED AGENCIES

Mr. Chairman:

It is my privilege, shared by my associates, to appear again before this Subcommittee to discuss the budget request before you for the Fish and Wildlife Service.

I heartily support the President's national economic objective of reducing inflation due in part to continued Federal budget deficits. The Fish and Wildlife Service will do its part. Savings can be made in Service programs by reducing lower priority programs, improving management efficiency, and working more closely with other agencies and the States.

The key to realizing those opportunities that do exist is the rational and precise allocation of the available funding together with alert and demanding management. It is for this reason that our budget proposes funds to be devoted to two primary purposes: operation and maintenance of Service national wildlife refuge facilities and fishery facilities to improve management and efficiency, and implementation of the recently enacted Alaska National Interest Lands Conservation Act.

RESOURCE MANAGEMENT

The revised request for the Resource Management appropriation is $221.5 million, a reduction of $42.6 million from the January request and $4.1 million less than appropriated to date in fiscal year 1981.

We are proposing an increase of $3.8 million for operating and maintaining national wildlife refuges and $1.6 million for the same purpose at national fish hatcheries over the base. These increases are of high priority, because rising costs of materials, supplies and labor over the past several years have necessitated deferral of normal cyclical maintenance of facilities such as water control structures, dikes, raceways, ponds, irrigation and pumping systems, as well as support facilities such as buildings, roads, fences and equipment, which must be addressed in FY 1982 if we are to fullfil our stewardship responsibilities. Operational costs such as fish food, electrical power, and other utilities have also been impacted by cost escalation. The impacts have been more severe at existing, older facilities.

Increased operation and maintenance funding will not only improve effectiveness, promote safety and provide basic operational needs but also will respond to Congressional concerns expressed about the operation and maintenance funding of Service facilities.

The Alaska National Lands Conservation Act was signed December 2, 1980. The Service request includes amounts to implement the Act. The Act established nine new and enlarged seven existing national wildlife refuges in Alaska; directed specific studies of fish and wildlife resources and established subsistence use of renewable resources as the priority consumptive use on public lands.

The revised budget includes an increase of $6.6 million compared to the original request of $13.0 million. Of the original requested increase of $13 million, the subsistence grant to the State of Alaska was transferred to the Office of the Secretary (-$3.5 million), and resources to conduct certain study requirements were absorbed in our base.

The focus of management of the new refuge units is the maintenance of all natural and cultural values with particular emphasis on fish and wildlife and their habitats. Several factors and difficulties are unique to Alaska and become important in determining management objectives and strategies:

- Native cultures and the frontier lifestyles of other rural Alaskans are based on subsistence use of fish and wildlife.
- Mandatory provision of multiple public uses such as hunting, fishing, commercial fishing, timber and other economic uses.
- Comprehensive planning, a basic prerequisite to intelligent and purposeful fish and wildlife stewardship, requires an enumeration of the nature and extent of the existing resources of an area and their use.

Surveys, censuses, and management studies will be conducted on refuges to determine numbers, species, and habitat needs of fish and wildlife resources where gaps in existing data are apparent. The basic ecology of these lands will also be studied. When completed, the plans will define actions required to maintain the viability of ecosystems, including the levels of compatible uses for various purposes. The limited time for completion of the refuge comprehensive planning task required under Section 304(g) of the Act is a high priority in the Service's implementation strategy under the Alaska land Act.

Habitat preservation activities have been reduced in areas such as contaminant evaluations, permits and licenses, areawide planning and biological services by $16.7 million from the January request and $12.1 million from the $48.2 million appropriated in 1981. Increased administrative efficiencies, including reductions in the Washington office and regional offices can accomplish some savings. However, closer coordination with other Federal agencies and the States will provide additional savings and a more balanced approach for conservation and development of the Nation's natural resources. No funds are budgeted for the cooperative fish and wildlife units, as they are proposed for closure by the end of FY 1981.

The January request for endangered species activities was essentially the same as the 1981 amount of $24.9 million. The March revision reduced this total by $8 million.

Elimination of grants-in-aid to the States constitutes 50 percent of the reduction. These funds were originally designed as seed money to promote and support active State involvement in endangered species activities. This aim has largely been accomplished and the States can pursue their own high priority efforts in the future. Other reductions will be made in endangered species listings, protection, and maintenance and recovery.

CONSTRUCTION AND ANADROMOUS FISH

The revised request for the Construction and Anadromous Fish appropriation is $7.4 million, a reduction of $22.7 million below the January budget request and $28.0 million below the revised FY 1981 request.

The budget request will continue development and rehabilitation of facilities of the National Wildlife Refuge System at a level of $6.0 million, a reduction of $3.9 million from the January request and $19.2 million less than in 1981. Reductions are directed only against lower priority items which are least likely to cause a loss in wildlife benefits. These reductions are made against such items as administrative and environmental education facilities while preserving important wildlife enhancement projects.

The original proposal for dam safety of $1.7 million would have been used to inspect 200 dams. The revised budget provides $649,000 to inspect 56 dams that have a high or significant potential for immediate hazards to human life and private property in the event of failure. The remaining dams have little potential for hazard to life or property. Inspections on these dams can be deferred, since they do not pose an immediate threat.

The request for the rehabilitation and development of the domestic water supply system at the National Fishery Center, Leetown, West Virginia, was retained, but construction at the Gainesville National Fishery Research Laboratory, Florida, the National Wildlife Health Laboratory, Wisconsin, and the Iron River National Fish Hatchery, Wisconsin, can be deferred. The request for energy conservation can also be deferred without detrimental impacts on Service operations.

This concludes my statement, Mr. Chairman. I and my associates will be pleased to answer any questions that you or the members of the Committee may have.

Mr. YATES. Now, you are the new Acting Deputy Director of the Fish and Wildlife Service?

Mr. HESTER. That's right.

Mr. YATES. Are there any replacements that have taken place since last we met?

ADDITIONAL WITNESSES

Mr. HESTER. Not replacements in the sense of new people in the Fish and Wildlife Service. There are two additional witnesses before you today added to the list, Jim Pulliam, who heads the National Wildlife Refuge System, and Mr. Richard Smith, also.

One change in the sense that Mr. O'Connor was here acting in the absence of Mr. Lambertson, and Mr. Lambertson is back with us now.

[The biographies follow:]

BIOGRAPHICAL SKETCHES

JAMES W. PULLIAM, JR.

James W. Pulliam, Jr., 44, Deputy Associate Director-National Wildlife Refuge System, is from Henderson, North Carolina. He received a B.S. degree in wildlife conservation and management from North Carolina State University in 1958.

Pulliam began his Federal career as an assistant refuge manager on Mingo National Wildlife Refuge in Missouri. In 1959 he transferred to the Louisa-Keithsburg Division of the Mark Twain Refuge, where he remained until 1961. He then became a wildlife biologist in the area acquisition office in Aberdeen, South Dakota, before moving to Webster, South Dakota, in 1963 to begin management of a 10-county waterfowl production area district. He became refuge manager of the Lacassine Refuge in Louisiana in 1964.

In 1966 Pulliam transferred to the Washington Office, Division of Wildlife Refuges, as assistant chief, Branch of Programs. From 1970 to 1972 he was assistant regional supervisor, Division of Wildlife Refuges, in Albuquerque, New Mexico. Pulliam then returned to the Washington Office to assume the duties of assistant chief, Division of Wildlife Refuges. He became acting chief of the division in 1973, and was appointed chief of the division in 1974. In 1975 he became acting deputy associate director-wildlife resources, assuming this job on a permanent basis in 1976.

He remained there until 1979 when he was appointed to his present position with responsibilities for the Divisions of Refuge Management, Realty, and Youth Activities. In 1979, Pulliam received a meritorious service award.

RICHARD N. SMITH

Richard N. Smith, 46, Deputy Associate Director-Research, is from Boston, Massachusetts. He holds a B.S. in wildlife management from the University of Maine and an M.S. in wildlife management from the University of Massachusetts. He also received an M.S. in public administration from American University, Washington, D.C., in 1978.

Smith was a member of the U.S. Army Transportation Corps from 1953 to 1955. His wildlife management career began as a waterfowl biologist with the Maryland Inland Fish and Game Commission in 1958, where he worked on Chesapeake Bay activities.

He joined the Fish and Wildlife Service in 1962 as an animal control biologist in the Division of Predator and Rodent Control in Massachusetts. He later served as assistant district agent, Division of Wildlife Services, Columbia, South Carolina; State supervisor, Division of Wildlife Services, Columbus, Ohio; and staff specialist-research, Animal Damage Control, Washington, D.C., and as assistant deputy associate director of Research. He was appointed to his present position in 1979.

Smith enjoys small game hunting, river fishing, and managing girls' softball and basketball teams. He is married and has four daughters. He and his family reside in Vienna, Virginia.

Smith is currently the Acting Associate Director for Research.

IMPACT OF BUDGET REDUCTIONS

Mr. YATES. Between the Carter budget and Reagan budget, you have lost $42.6 million from Resource Management.

How badly will that hurt you, if, indeed, it will?

Mr. HESTER. Mr. Chairman, there is no question that we will do less of things than we would have otherwise. I can describe for you by the individual programs the amount of those reductions, and we are prepared to describe how and where those reductions will take place.

Mr. YATES. I have that as a part of your revised budget figures. On page 5–A, it is indicated where those reductions will take place, is that correct?

Mr. HESTER. That's correct.

ENDANGERED SPECIES

Mr. YATES. What is going to happen to your Endangered Species Program under the revisions? Is that endangered now?

Do you include that among the species that are endangered?

Mr. HESTER. The reduction has two major components. One, the grant program to the States which accounts for half of the reduction. The other half is within the Fish and Wildlife Service, our inhouse responsibilities.

Mr. Lambertson can perhaps enlarge on the answer.

Mr. YATES. Mr. Lambertson, what happens as a result of a loss of $4 million in the funding of cooperation with the States?

Mr. LAMBERTSON. There are presently 45 States that have cooperative agreements with the Fish and Wildlife Service, carrying out endangered species programs. The Federal funding portion of that will stop. We are hoping the States will pick up most of that and continue those programs.

Mr. YATES. Do you mean just stop automatically? Is there a total elimination of funding?

Mr. LAMBERTSON. Yes.

Mr. SOKOLOSKI. Mr. Chairman, there has been some carry-over this past year and may be some carry-over estimated for the coming year.

But there will be no new funding request.

Mr. YATES. How well is the cooperative program working?

Mr. LAMBERTSON. The program started out quite slowly in that States had to establish comprehensive new laws to protect endangered species within their States. Therefore, for the first years, 1975, 1976, there wasn't a whole lot of action. But during the last several years, almost every State has a comprehensive endangered species program.

We find they really have more activities than we can fund.

Mr. YATES. How successful were their programs?

Mr. LAMBERTSON. I think quite successful, sir. We found we established our Federal priorities for the States. We, for the most part, required the States to do the same things we would do for the same species in the same way we would do them.

We had a quite strict control on the quality of the programs that they had, and the States have done a fairly good job at it.

Mr. YATES. How will the program work now? Now that you no longer work with the States on the programs, will the program be as effective?

Mr. LAMBERTSON. I am sure it will not be as effective. I am sure some states will not be able to come up with the necessary funding. We are hopeful that a lot of States, or most States, will do that.

The program is in place and is functioning. It is a matter of the source of the revenues to carry it on.

Mr. YATES. What is the match ratio?

Mr. LAMBERTSON. Two-thirds/one-third.

Mr. YATES. Is there any talk of changing the match ratio?

Mr. LAMBERTSON. I am not aware that there has been discussion on that point, no, sir.

Mr. YATES. Will the States have to take out of the block grants that come from the Federal Government, under the Reagan proposals, money for this program as well?

Mr. LAMBERTSON. That is one possibility, yes, sir.

Mr. YATES. What is your guess as to whether the States will assume the responsibility?

Mr. LAMBERTSON. I would hate to hazard a guess. I think there are some States that have the financial resources to carry on a program like this, California, Texas, and others that have a rather large surplus.

Others, I question whether or not they will carry on the program. Several States have notified us telling us they would not carry on the program.

Mr. YATES. They would not carry on the program. In effect, that Act is dead. Why put in the rest of the money for the program?

Why put in the $4 million? Can you carry on an Endangered Species Program with the $4 million left, and no cooperation with the States?

Mr. LAMBERTSON. It is not $4 million left, sir. There should be about $17 million.

Mr. YATES. Excuse me. That's right. $17 million. It's a $4 million reduction.

Mr. LAMBERTSON. The State portion is only a small part of the program. It is a supplemental part of what the Federal program does, but certainly not the most important part of the program.

Mr. YATES. All right.

You are going to lose $1,500,000 in Listing, $1,092,000 in Protection and $92,000 Consultation. Maintenance and Recovery, $1,592,000.

Well, how well does the overall program work? Up to now, it has worked well, you say.

How bad a blow will that be to the program if you have lost your cooperation with the States?

How will you be able to carry on the program as effectively?

Mr. LAMBERTSON. The States, in effect, carry out a lot of the responsibilities that we would have carried out.

Mr. YATES. Right.

Mr. LAMBERTSON. They are supplemental to the efforts we do when we list species. We looked for conservation groups, other Federal agencies and similar groups to participate.

To some extent, all the States will not be participating. At least not at as high a level as they used to.

Mr. YATES. What will be the result with the program?

Mr. LAMBERTSON. With some species, it can be quite severe. Probably the best example would be the manatee in Florida, where we have initiated a major recovery action with two State agencies actively involved, a lot of the law enforcement, research and other actions we could and possibly should be doing are carried out by the State agencies in Florida.

That portion will probably come to a stop. The State has said it is doubtful that it will be able to carry on that portion.

CALIFORNIA CONDOR RECOVERY

Mr. YATES. What about the Condor Recovery Program? Mr. Goldwater was in yesterday asking for money for the condor recovery program.

How is that going on?

Mr. LAMBERTSON. That started out quite well. We had several problems with the State of California. There has been a lot of controversy associated with that program.

The State has not yet issued a permit that would allow us to capture and remove condors for propagation purposes. From that standpoint, the program hasn't gone as fast as we would have liked it to.

Because of the controversy with the State permit, we are required to do additional research. To the extent there is any additional money that would come to the program, it would speed up the process.

Mr. YATES. Is this an unbudgeted item?

Mr. LAMBERTSON. Yes, it is.

Mr. YATES. For $450,000?

Mr. LAMBERTSON. Presently, there is $250,000 in there. As I understand it, Congressman Goldwater has requested an additional $200,000.

Mr. YATES. What is the minimum amount that will enable the program to go forward?

Mr. LAMBERTSON. We feel we can continue with the $250,000. The question is how much we can get done and how soon.

Mr. YATES. What would happen if the $250,000 were not provided, would the condor become extinct?

Mr. LAMBERTSON. I think that is very likely. There is a chance it is going to become extinct, notwithstanding our efforts.

There is a question as to whether or not we have already waited too long. We are down to 25 birds. We don't know for sure what is causing their extinction. They are dropping about two and a half birds a year.

Mr. YATES. Is there anything else we should know about the program?

Mr. LAMBERTSON. I could speak for hours, I suppose, if you would be interested.

Mr. YATES. How many other species besides the California condor are being threatened with extinction to the same degree?

Mr. LAMBERTSON. To the same degree? Probably the condor is the worst, though we have lost some other species. Last year we lost the Dusky Seaside sparrow in Florida. Our latest survey shows five males, no females. So we are losing species occasionally.

With respect to the condor, we hope we got in early enough to save that one.

PEREGRINE FALCON RECOVERY

Mr. YATES. What about Peregrine falcons?

Mr. LAMBERTSON. I think we can report there is some success there. Recovery efforts carried on primarily by the Peregrine Fund out of Cornell and Dr. Cade have been quite successful. The program there is putting in up to 100 birds a year, for example, in the State of Colorado, we find we have natural propagation on the East Coast for the first time.

Historically, 20 years ago, there were no Peregrines left on the East Coast. We had two successful nesting pairs last year.

Mr. YATES. Is that above budget, too, funds for that?

Mr. LAMBERTSON. Yes. Presently, we have $100,000 for Peregrine, and that is a reduction of $225,000 from last year.

Mr. YATES. What would happen if we didn't put the money back in?

Mr. LAMBERTSON. Then Mr. Cade would have to have a reduced program.

Mr. YATES. Has the program taken hold to the point where we should no longer put money in it?

Mr. LAMBERTSON. I don't think we can say that. We had our first successful nesting last year. I don't think anyone can say that the Peregrine is out of the woods.

We found, for example, in the State of Colorado, where they have a major release program, that the number of wild nesting birds has been reduced to three pairs. We have not yet had any successful nesting by the released birds.

We are hoping to be successful in a few years. But I don't think we can say that the Peregrine has recovered.

Mr. YATES. So far, you have told us about the Peregrine falcon and the California condor. Are there others you should bring to our attention?

OTHER RECOVERY EFFORTS

Mr. LAMBERTSON. Well, we have a major recovery effort going with the grizzly bear. For the first time, we got all the Federal and State agencies together in Montana, Wyoming and Idaho and have prepared a recovery plan so the Forest Service, Park Service and others will know what the grizzly bear needs for recovery and protection.

That is being implemented at the present time.

Mr. YATES. Do you have a count on the bears?

Mr. LAMBERTSON. Yes, we do, rough estimates. We estimate about 250 in the Yellowstone ecosystem, and about 300 in the Glacier ecosystem.

Mr. YATES. What about Alaska?

Mr. LAMBERTSON. Alaska is not listed. The Alaskan grizzly is in good shape.

COLORADO SQUAWFISH

Mr. YATES. What about the loss of brood stock in Arizona? What impact will that have?

Mr. LAMBERTSON. What species is that, sir?

Mr. YATES. That is the endangered Southwest fish. Your justification doesn't specify which species. It just says "endangered Southwest fish."

Mr. LAMBERTSON. Yes, sir. We have a number of highly endangered fish that occur in small streams and springs in the Southwest.

Mr. YATES. Apparently this was a theft.

Mr. LAMBERTSON. Yes. That was the Colorado squawfish. That was our brood stock we were maintaining for purposes of reintroducing throughout the Colorado River system.

Some people, not understanding the value of those fish, broke in and stole them. We caught the people. They ate a number of them and took some to a taxidermist. They are presently before a Federal court on the charge.

Mr. YATES. Did you lose all your brood?

Mr. LAMBERTSON. All of the larger ones, yes. We estimate it will set the restocking program back three to five years. It takes about five to seven years for these fish to become mature.

All of the larger fish were about to become mature so we could start artificial propagation. Those were the ones that were stolen.

MANATEES

Mr. YATES. You talk about the West Indian Manatee. Are those the ones being killed by the boats?

Mr. LAMBERTSON. Yes, sir. That is the major problem. There are other problems with insecticides and heavy metals.

Mr. YATES. Are they really being jeopardized to the point of extinction?

Mr. LAMBERTSON. Yes, they are. There are presently approximately 1,000 animals. The population is declining between 50 and 100 a year. Boat strikes are one of the major causes.

We are salvaging the dead animals and keeping very close count, but we are finding we get between 50 and 100 a year that are killed outright by boats.

They are very long-lived with a very low reproductive ratio. With that kind of mortality, it is going to be a pretty dismal future for the species.

Mr. YATES. I know about Hobe Sound. Do the boats hit them at Merritt Island and the refuge, too?

Mr. LAMBERTSON. Yes. They are on the refuge. We have had rather active programs to slow the boats down. So on the refuges, we can say we are seeing real success.

The State of Florida and the Coast Guard are also working cooperatively outside the refuges to do the same thing.

OTHER SPECIES

Mr. YATES. What about the Whooping crane?

Mr. LAMBERTSON. The Whooping crane population hit a new high approximately 120 birds. We have the new population established in Grays Lake, Idaho. We presently have about 20 birds in that population.

That is a totally new population established about 5 years ago.

Mr. YATES. Was that because of the dancing—you had somebody who dances with them.

Mr. LAMBERTSON. Oh, yes, it is Mr. Archibald, who dances with them.

Mr. YATES. Apparently he was successful.

Mr. LAMBERTSON. Well, we have not yet had propagation among those in Idaho. We have all young birds. Some of them are reaching breeding age this year. We will find out very soon whether or not we are going to have any propagation with those.

Mr. YATES. Then you have the Columbian white-tailed deer, the Delmarva fox squirrel, the prairie chicken and the famous snail darter.

Apparently, you were able to relocate the snail darter away from the TVA dam, is that right?

Mr. LAMBERTSON. Yes, sir. Before the snail darter was listed, we asked TVA to do an extensive survey of that area to find if there were any other snail darter populations. They sent between 20 and 30 biologists into the field looking for snail darters in a major effort trying to find these.

They came back swearing there were no other snail darters. If there were, we wouldn't have had a problem. Based on that, we went ahead with the listing. Now, we can't understand how they are being found by university professors in the same places that TVA swore they looked and they weren't there. A very interesting situation.

Mr. YATES. Maybe the professors have better eyesight. Then you have a clapper rail.

Mr. LAMBERTSON. Yes, sir. That species, primarily in California, is suffering from major habitat changes. All the coastal marsh throughout California is disappearing. We have it down to just several marsh areas.

Mr. YATES. You had a few in San Francisco.

Mr. LAMBERTSON. Yes, but this is farther south than that. It is the southern coastal marshes that are disappearing.

Mr. YATES. Is that due to real estate development?

Mr. LAMBERTSON. Yes, sir, that and pollution.

Mr. YATES. Canada goose?

Mr. LAMBERTSON. Yes, sir, that is a population of geese that lives out on the Aleutian Islands, wiped out initially by the introduction of fox. They put fox out there for artifical propagation purposes to establish fur farms. They wiped out the nesting populations.

Mr. YATES. Now, you have the sea turtle. I am trying to remember. When I was at Hobe Sound, they said that they were doing very well with the sea turtle.

Mr. LAMBERTSON. In the United States, where we can protect the beaches, we are having quite good success with nesting of the sea turtles.

In other parts of the world, the nests are being destroyed and the eggs eaten. The sea turtle is, worldwide, on the decline, caused by losing their nesting sites, primarily.

ALBUQUERQUE REGIONAL OFFICE

Mr. **Yates**. Let's talk about the closing of the Albuquerque, New Mexico, regional office now. What is the status of the reprogramming?

Mr. **Hester**. Mr. Sokoloski.

Mr. **Sokoloski**. Mr. Chairman, we had originally submitted a reprogramming request prior to the change in Administration. Since the change in Administration, we have been awaiting the approval of the Congress of the designees for Assistant Secretary Fish and Wildlife and Parks, and for Director of the Fish and Wildlife Service, based upon the understanding that they would wish to review the situation as a top priority.

Accordingly, further action on reprogramming, or any other alternative, is awaiting their decision.

Mr. **Yates**. Awaiting whose decision?

Mr. **Sokoloski**. This would be the Assistant Secretary-designate for Fish, Wildlife and Parks, and Director-designate for the Fish and Wildlife Service.

Mr. **Yates**. What is happening, is it still open and operating?

Mr. **Sokoloski**. They are functioning in a normal pattern. They are subject to the same budgetary impacts as the rest of the agency but in no unique way.

Mr. **Hester**. It is operating in a somewhat reduced way in that we have not put an acting regional director there.

USE OF CONSULTANTS

Mr. **Yates**. I think that is true in most every agency. There are no assistants. There is an Executive Branch directive saying you shouldn't use as many consultants.

How does this impact on you? Does Fish and Wildlife Service use many consultants?

Mr. **Hester**. Yes, in the sense that we have people that we contract with who help us make analyses, or do types of work for us.

In that sense, we contract out some of our work. It is not a great deal. It is not as much as some other agencies do. It is carefully reviewed, however, Dr. Sokoloski can probably add to that.

Mr. **Sokoloski**. Mr. Chairman, we have identified a maximum of approximately $45,000 in each of the past two years for consultants and we have never fully utilized that sum.

Mr. **Yates**. What about travel time? Does the restriction on travel funds hurt you?

Mr. **Hester**. There is a general reduction. I think we have tended to eliminate those things that are less essential. It has hurt us some, but not severely.

STATUS OF SUPERFUND

Mr. **Yates**. What is the status of the superfund, as far as Fish and Wildlife is concerned?

Do you get any help from the superfund?

Mr. **Hester**. Mr. Spear.

Mr. **Spear**. Mr. Chairman, as of yet, we have very little program under way in "superfund." The Department has recently begun an examination of the Department's role, Fish and Wildlife Service, under Assistant Secretary for Fish and Wildlife, leading that effort for the Department.

We plan to put together a departmental proposal within a month. Then we will be working with the EPA who has the overall responsibility for working out the roles and responsibilites between the two departments.

I would expect the 1983 budget proposal, that will come to Congress in January, would lay out the grand plan for the "superfund." In the intervening year and a half, we will be operating in a sort of an interim fashion. I think things are getting underway, but there is no tremendous action. As of yet, we have not received money from the "superfund."

Mr. YATES. What coordination do you have with NOAA in its ocean-dumping programs and the New York program?

Mr. SPEAR. Mr. Chairman, we work with NOAA, EPA and the Corps of Engineers on the New York bight. We have raised considerable concern on the New York bight over the issues of contaminated dredge spoil.

New York Harbor, as any large harbor, requires a considerable amount of maintenance dredging every year. The ocean-dumping has some rather stringent tests that any dredge spoils, any possibly contaminated dredge spoil, must pass.

There are currently some differences of opinion between Federal agencies which are undergoing some scientific, technical review as to the nature of the tests and the acceptable levels for some of these contaminants.

We are particularly concerned, both ourselves and NOAA, we have worked rather closely together, because this is a major migration area for the Hudson River Striped Bass.

So, as I say, the criteria for ocean-dumping are rather strict. As we see the Striped Bass affected, our interest has gone up considerably.

PCBs have been a major issue, but also heavy metals. It is extremely technical, one where scientists can have some disagreement.

We are trying to find a solution in terms of the long run. It's obvious that nobody is going to say you can't dredge in New York Harbor. On the other hand, trying to find a solution that imposes the minimum impact on the resources is rather difficult because there are very little land sites available in the area.

ENVIRONMENTAL CONTAMINANT RESEARCH

Mr. YATES. Your land-use contaminant research is being cut. I would have thought that would have been a very important item.

Mr. SPEAR. Mr. Chairman, the overall research budget for contaminants has been cut $900,000. $456,000 of that cut would be from acid rain. The land use is a rather broad term. Perhaps unfortunately broad for clear description.

Certainly, we feel some land-use practices are relatively well understood at this time, and regulatory action is beginning to be taken.

Therefore we can begin to shift to other practices. We are going to be particularly interested in contaminants related to energy development. Thus, some of the land-use practices, particularly agricultural practices, or forest or range, where studies have been underway a long time, we feel we can reduce.

Those chemicals are better understood, as well as some of the chemicals related to future developments, energy being the primary one.

Mr. YATES. Who is going to carry the ball on acid rain?

Mr. SPEAR. EPA has overall responsibility for managing acid rain.

Mr. YATES. What was your part of the program?

Mr. SPEAR. Our part is relatively small at this point.

Mr. YATES. Because of the cut, or because of——

Mr. SPEAR. Even with the increase, it would have been relatively small. The overall program is approximately $10 million. The Fish and Wildlife Service, had we gotten this increase, would have had a program of approximately $600,000.

In addition, we do get a half million dollars from EPA on an annual basis, so our total program would have been, with the increase, approximately $1,100,000 out of a $10 million Federal program.

PESTICIDE PROBLEMS

Mr. YATES. Is there still a great problem with respect to pesticide?

Mr. SPEAR. Mr. Chairman, pesticides is a very broad term.

Mr. YATES. I am a layman and I don't know how to put it more precisely. Some years ago, DDT was a problem.

I assume you can call that a pesticide?

Mr. SPEAR. Yes, sir.

Mr. YATES. You have that impacting on your fish and on your birds. DDT is no longer a problem.

Mr. SPEAR. Mr. Chairman, it is a very isolated problem. For instance, we have had a considerable problem in the lower Rio Grande River, as a result of what we think is the import of vegetables from Mexico, then brought into the U.S.

We have found in a couple places where they have been brought into the U.S. and washed, we have washed off a lot of DDT in the lower Colorado, down by the Rio Grande, we have found a lot of DDT.

Mr. YATES. Do you find it is still a national problem with respect to any species?

Mr. SPEAR. I think there are two things I would say. First of all, the long-term pesticides, such as DDT, we think are rapidly on the decrease.

Now, we are using shorter-term pesticides.

Mr. YATES. 2,4,5-T and so forth?

Mr. SPEAR. 2,4,5-T is a herbicide but contains a very highly toxic substance. I think Mr. Hester, in his other capacity as head of Research, might want to add to this.

Mr. YATES. All right.

Mr. HESTER. I might add there are still some national problems. As you have pointed out, as we have gone, as a nation, away from some of the more long-lived material, we have tended to use others that are shorter-term. But some of them are very hazardous during a shorter time period.

Mr. YATES. What do we mean by short time period?

Mr. HESTER. Maybe a week, a day to a week. It may be very hazardous, but does not necessarily pose long-time problems like the DDT problem did that took years.

The 2,4,5-T you mentioned is a herbicide. That is a type of pesticide. It in itself poses some problems.

But in addition, there has been national focus on the problem of the dioxins which are contained therein as a contaminant in the material, a very hazardous material, but found in very low quantities.

But this is the type of thing we are interested in because we do find an impact on wildlife. Although it is in very small quantities, it is a very toxic material. There are similar materials not technically known as pesticides, but are related. That is, the PCBs to which we referred.

They were never used as insecticides or other pesticides. But they got into the environment nevertheless. They have some of the same kinds of characteristics as does DDT, for example, slow breakdown. It is biologically magnified within organisms. That is, it is taken in and not excreted, but retained there and builds up as a result. It causes some of the same kinds of problems as DDT does.

The reason I emphasize that is that those materials are still around and are likely to be around for some time.

Mr. YATES. I know the PCBs are around in Waukegon Harbor. Are you engaged in that clean-up at all?

Mr. HESTER. Not to my knowledge.

Mr. SPEAR. I think we are engaged simply as a consultant.

Mr. YATES. The PCBs are found in the fish in Lake Michigan and the Great Lakes.

Mr. HESTER. They are.

Mr. YATES. To what extent, then, does your jurisdiction apply?

Mr. HESTER. Our relationship is primarily one of research, inventory and survey. We do not have responsibility in a regulatory sense, either of cleaning up the contaminants, an EPA and Corps of Engineers responsibility, nor do we regulate the harvest of those fish in commercial markets, for example; Food and Drug Administration would have that responsibility.

Our responsibility, however, relates more to understanding the effects of these materials on the fish themselves, and the wildlife.

What effect does it have, at what level does it cause what effects; that is the kind of research we are doing.

Mr. YATES. Do you go one step beyond that? Who determines what effect eating the fish would have on humans?

Mr. HESTER. Primarily Food and Drug Administration, and to some extent, EPA would have that responsibility. We certainly provide them with the information we know about.

That is, what happens to birds that eat fish containing these materials. That gives some pretty good clues as to what is likely to happen to other types of organisms eating the same food items.

Mr. YATES. Apparently, there was an article in the paper over the weekend that people were recovering from Kepone contamination. Is that true of fish as well?

Mr. HESTER. I think there has been a general improvement in the condition of the James River. It's been a long, slow process. The Kepone is not all gone, but there are a number of factors that come into place, including sedimentation over existing Kepone, et cetera. I think there has been some general improvement.

HABITAT PRESERVATION REDUCTION

Mr. YATES. I know insofar as the habitat preservation program is concerned, Dr. Hester, your research program was cut by almost a million dollars. Is that going to hurt you?

Mr. HESTER. These, in general, are the kinds of reductions we have just mentioned. Part of it has to do with the acid rain, and part of it is a general reduction across the other contaminant work.

Mr. YATES. We hope that the other agencies that are engaged, as you are, in these programs, will not be hurt to the point where the programs would be eliminated.

Mr. HESTER. Yes, sir.

Mr. YATES. Do you know whether that is true or not?

Mr. HESTER. I am aware of a general reduction, general belt-tightening across government.

Mr. SPEAR. Mr. Chairman, on the acid rain program, there was an overall cut of a million dollars across the government. About a half million dollars of that cut was in the Fish and Wildlife Service. So somewhere else is another half million dollar cut.

Mr. YATES. What happens to our research efforts on acid rain? I know the Canadians were very much up in arms to what they said was the American insensitivity to the impact of acid rain upon Canada.

Apparently they have been able to trace it from America to Canada. Will this mean that the research that has been started in relationship with Canada be jeopardized?

Mr. HESTER. I do not think that the research that we had started would be jeopardized, because we actually had very little going on acid rain.

This would have enhanced our effort. So, in that sense, it will not be a reduction. We will not be starting it up at a larger rate, so that will simply be postponed.

Mr. YATES. Permits and Licenses are being cut by a million and a half dollars. You are losing 20 people. How will you be able to take care of the services?

Mr. SPEAR. Mr. Chairman, I plan to manage that cut, first of all, by, throughout the habitation preservation program, by reducing, to the greatest extent possible, the Washington offices and regional office staffs, thereby allowing both the research labs and our national biological services teams and the field people to maintain as high level an activity as possible.

The Washington and regional offices will be reduced by approximately 40 percent in people and funding. Therefore, a great number of personnel will be reduced from those levels.

The effect it will have on the field is that we currently review about 45 percent of the permits. In other words, we take action on about 45 percent of the permits that come to us for license actions.

What this will mean is that we will simply raise our threshold somewhat in a sense, and maybe look at only 40 percent of the permits next year.

So we are simply faced with a problem of relying more heavily on the States and other regulatory agencies to screen the permits for losses.

Mr. YATES. One says that throughout your justification, relying more heavily on States. You are not only relying more heavily on States, but direct funding to States is being eliminated.

On areawide planning, I note direct funding to States for development of State permit programs to meet your requirement of the Clean Water Act will not be provided. Planning and biological assistance to such programs will be reduced.

Mr. SPEAR. Mr. Chairman, we had funds in our budget for assistance to States on the Clean Water Act.

What we were doing was working with three States, Michigan, Colorado, and California, approximately $100,000 each, to aid them to develop what we might call a model State assumption program for the 404 program.

The Clean Water Act amendments of 1977 encouraged States to take over the problem. States have had difficulties because of their own funding problems.

In our effort to encourage the States, we wanted to work with three States and develop a model. Michigan is very close to that now.

I think they plan to have a program ready to assume at the end of this fiscal year. However, they have indicated that probably because of the funding situations, Michigan being particularly hard hit, that they probably will not be able to take over the program.

We are pleased that we think at least there will be a model program available for States to emulate, should they want to pick it up.

Mr. YATES. You had a program for identifying areas on the Atlantic Coast which were susceptible to natural forces which would make them undesirable for the siting of industrial facilities, such as refineries.

What is the status of that?

Mr. SPEAR. Mr. Chairman, I am pleased to report to you that that project was completed last August or September. We produced the maps for the East Coast on the 1-to-250,000 scale.

They have gotten wide distribution, and reaction has been quite favorable. Many of the uses of those maps we did not even anticipate.

For instance, we heard from the Chairman of the National Response Team for Oil and Hazardous Substance Spills, that he is able to use those maps when he has a spill.

He's able to look on those maps and see there is a high-value rookery here, or a clam bed here. And get some immediate indication of the resources he should be concerned about.

Plus the Corps of Engineers, State agencies, local agencies, have used the maps to identify significant resources.

We are doing the Pacific this year.

LAND ACQUISITION PROGRAM

Mr. YATES. And finding you are losing your wetlands there in great measure. What happens to your acquisition program under the new budget?

Mr. HESTER. The acquisition program under the Migratory Bird Conservation Act will remain stable. That is, the funding from duck stamps.

Mr. YATES. What happened to wetlands accumulations?

Mr. HESTER. That is——

Mr. YATES. I know. That is just part of it. We have been supplementing duck stamps over the years. Now there is nothing in the budget for that.

Mr. HESTER. We have not asked for an advance on duck stamps and not asked for land and water conservation funds.

Mr. YATES. Do you have any acquisition areas which would be critical to your programs?

Mr. HESTER. I would say the most critical wetlands we have are funded through the Migratory Bird Conservation Act. That funding remains.

So we will take the most critical areas, especially as they relate to wetlands and waterfowl, from that.

Mr. YATES. Do those funds provide enough money to take care of all your critical areas at this time?

Mr. HESTER. Not enough to meet our projected demands.

Mr. YATES. How much money will be available under that program?

Mr. HESTER. $16.5 million.

Mr. YATES. How much money do you need for your critically needed wetlands?

Mr. HESTER. Mr. Myshak, could you answer?

Mr. MYSHAK. We have identified 21,400 acres this year with Migratory Bird money.

Mr. YATES. That is not very many acres to buy, is it? Development marches on, is that right?

Mr. HESTER. That's right.

Mr. YATES. Where are you going to use that money? That is a minimum amount, isn't it? How much are you spending per year for the acquisition of wetlands?

How much did you spend in 1979, for example?

Mr. SOKOLOSKI. I believe it is $26.5 million.

Mr. YATES. And in 1980?

Mr. SOKOLOSKI. I believe the committee added approximately $1.5 million in advance money to our estimate of—I am sorry. Those are 1981 figures that I gave.

Mr. YATES. Should the committee put more money into the budget for that purpose, even though it hasn't been approved? What is the situation? You are going to pick up 21,000 acres. How many acres should you be picking up?

Mr. MYSHAK. Mr. Chairman, maybe one way of looking at the entire picture is that when we set the goals for 1978 through 1986, with the Migratory Bird Conservation funds, we estimated about 1.95 million acres should be acquired in that 9 to 10 year span.

To date, we have only acquired about 16 percent of that total of 1.95 million acres.

Mr. YATES. According to the Carter budget justification, pages FWS-281 and FWS-282, you have 1,843,000 acres you ought to be picking up over a 10 year period.

Assuming you take an average, that would be 185,000 a year. You are only acquiring a fifth of that acreage this year, is that right?

Mr. MYSHAK. That's right.

Mr. YATES. If the committee were to add funding, should the money go to this fund, or to the Land and Water Conservation Fund?

Mr. MYSHAK. Between, the Migratory Birds and the Wetlands Fund. The wetlands acquisition is the most important thing for us.

Mr. YATES. How much do you pay the golf courses for taking care of the waterfowl who land on the water holes?

Mr. HESTER. As far as I know, we pay them nothing. We do sometimes remove the waterfowl when they remain there and become a nuisance. We translocate them to other facilities.

Mr. YATES. Have you had complaints from golf courses?

Mr. HESTER. Yes, we have.

Mr. YATES. What happens when one of the players decapitates one of your Canada geese?

Mr. MYSHAK. He goes to court.

Mr. YATES. Did you bring him to court?

Mr. MYSHAK. Yes.

Mr. YATES. There is no such thing as trespass by Canada geese, is there? But there was a request in the Carter budget for $36 million in funds for land acquisition in addition to duck stamps. Is all that gone?

Mr. HESTER. Primarily, Land and Water Conservation funds are no longer in.

Mr. YATES. How much money is in the budget for lure crops?

Mr. HESTER. Nothing.

Mr. YATES. Coal research and development, and coal operations, you cut a million one. Where are you hit the most, Dr. Hester, by the $60 million in cuts?

If you had your druthers about restoring some of this money, where would it go, other than research?

Mr. HESTER. In a sense, we did look at that, because we put our increases on maintenance of our facilities: national wildlife refuges and national fish hatcheries. So those are the areas that show net increases, as opposed to reductions. Those are areas that show some of our problems.

STATE ASSISTANCE PROGRAMS

Mr. YATES. I read in your justification, that you rely more and more on the States. Is California one of your important States?

Mr. HESTER. Yes, sir.

Mr. YATES. How will Proposition 13 funding help you in that State?

Mr. HESTER. I am not sure Proposition 13, in itself, would help us. I think the concept here is more along the lines of the block grants to the States, with the States doing more things for themselves and less dependence on us.

Mr. **Yates**. The States are passing things like Proposition 13 which cuts back the amount of money they can provide in taxes to take care of their State responsibilities. So if they are—if California has passed Proposition 13, it is not going to be able to make more money available.

Do you have assurances that relying on the States will help the Service protect the fish and wildlife resources?

Mr. **Hester**. We have no specific assurances.

Mr. **Yates**. What does history tell you?

Mr. **Hester**. Well, I would say for one thing, history says that if a State has block grants and great freedom to use those grants wherever they see the greatest need, they will place the emphasis on things that they consider to be the greatest problem.

Mr. **Yates**. Do your records indicate how much the States allocated from revenue sharing to fish and wildlife protection?

Mr. **Hester**. No, not from revenue sharing.

Mr. **Yates**. How much do the States allocate for this purpose? Don't they rely in greatest measure on what the Federal Government will do for protection of fish and wildlife?

Mr. **Hester**. In part. But I would remind you that we administer a Federal aid in Fish and Wildlife Restoration Program to the States.

Mr. **Yates**. Yes.

Mr. **Hester**. Which is around $145 million, that is Federal funding to the States. That has to be factored in.

Mr. **Yates**. Let's factor that in, $145 million. Has that figure been constant?

Mr. **Hester**. No, it's been generally growing.

Mr. **Yates**. Has that been reduced this year?

Mr. **Hester**. No.

Mr. **Yates**. You have a press release, dated February 1981, "States to Get an Additional $24.3 Million for Fish and Wildlife Federal Aid."

It brings $114.3 million, the amount available to the States this fiscal year by the Federal Government to finance wildlife restoration and hunter safety programs.

I suppose we better wait a year, and I better ask you next year how your program's working.

Mr. **Hester**. Yes, sir.

REDUCTIONS RELATED TO COAL LEASING

Mr. **Yates**. You are working with the Bureau of Mines and Office of Mining and Bureau of Land Management on certain coal studies in the coal research and development program.

Your program's being cut in this. Are the others being cut, too?

Mr. **Hester**. Mr. Spear, can you answer?

Mr. **Spear**. Mr. Chairman, I am not really aware; I wouldn't know what the BLM funding level is for coal.

Mr. **Hester**. Mr. Bettenberg might be able to give us some insight.

Mr. **Yates**. When he speaks, he always gives us insights.

Are you going to speak?

Mr. BETTENBERG. I am looking up some figures here. The overall reduction, tied to coal leasing. This is not exactly what you are after. I don't have the figures with me on leasing.

Mr. YATES. I will take it.

Mr. BETTENBERG. The overall program is being reduced by about $5.8 million. That includes $453,000 reduction, Bureau of Land Management. Excuse me, a $453,000 increase in BLM, a $209,000 increase in USGS, a reduction in surface mining of $5,955,000, and a reduction of $530,000 in the Fish and Wildlife Service.

Mr. YATES. What about the reduction of the State and private programs with coal?

Mr. SPEAR. Mr. Chairman, that will be a complete reduction. We originally had $700,000 in the budget for that.

Mr. YATES. That is gone now?

Mr. SPEAR. That will go, yes.

Mr. YATES. How happy will the States be with that?

Mr. SPEAR. It may vary from State to State, Mr. Chairman. There may be some that are quite happy; there may be some that are not so happy.

Mr. YATES. Why would some of the States be happy?

Mr. SPEAR. The Fish and Wildlife Service has been seen at times to be an impediment to full development by some States. Our concern has been to make recommendations to the States, to the Office of Surface Mining program, particularly with relation to endangered species and migratory birds.

In the development of the program, there was a great deal of concern with the fish and wildlife activity in the area. I think that has gradually reduced as the regulations have been developed. The way it stands now, we will rely on the States. We will work with them through our normal field office structure, and attempt through our normal budget, you might say on request, to assist them, particularly in their abandoned mine lands program, where they are restoring old lands.

But we will probably have very little involvement in the coal-permitting program.

WETLANDS MAPPING

Mr. YATES. What percentage of your private wetlands has been completed?

Mr. SPEAR. Through fiscal year 1981, we will have completed 21 percent. We will have mapped 21 percent of the country. That will be a much larger percentage of the wetlands of the country because we have focused on those areas where wetlands exist, along the Mississippi Valley, the pothole country of North Dakota and South Dakota. We still have a long ways to go in Alaska.

We are getting started in aerial mapping up there. 410 million acres will be mapped.

BIOLOGICAL SERVICES REDUCTIONS

Mr. YATES. Your amended budget deletes $200,000 requested for OCS operational activities. You don't have additional funding for it. How are you going to carry out your responsibilities under that without additional funding?

Mr. **Spear**. We have a $300,000 base in that area. The working relationship in this program within the Department is excellent.

BLM is funded. If we find we are unable to provide fish and wildlife assessments, we will discuss it with BLM and see if we can get funding from them.

Mr. **Yates**. That is fair enough.

Instream flow analysis. How important is that?

Mr. **Spear**. Extremely important, Mr. Chairman.

Mr. **Yates**. Do you have money to operate the program?

Mr. **Spear**. Mr. Chairman, we are requesting a $200,000 increase to bring us to a level of $400,000. That will provide us a good, strong base of funds to maintain the basic group. Then, with the guidance of this Committee, we have been seeking increased resources from, let's say users of the system, asking them to help pay their own way as they ask for our technical assistance.

We feel $400,000 will give us a good operating level.

COOPERATIVE RESEARCH UNITS

Mr. **Yates**. It's interesting to see the new justification as it lists the States and universities that will be affected by the elimination of the cooperative research.

Have you heard from them at all yet?

Mr. **Hester**. Oh, yes.

Mr. **Yates**. And you have said, "Sorry, nothing can be done?"

Mr. **Hester**. We have explained that the Administration's position is that in order to reduce Federal spending and balance the budget, there are some programs that are being reduced and others eliminated.

Mr. **Yates**. Why is Texas not on that list? Don't they have any fish in Texas?

Mr. **Hester**. Oh, yes, fish and wildlife both. There are cooperative units in 31 States.

Mr. **Yates**. Excluding Texas.

Mr. **Hester**. Excluding Texas.

Mr. **Yates**. And excluding Illinois. But that program is at an end anyway, isn't it?

Mr. **Hester**. This would terminate the program.

Mr. **Yates**. I suspect we haven't heard the end of that yet. How important is that cooperative program? Do you have other priorities?

Mr. **Hester**. Yes, we have the priorities I mentioned to you earlier.

Mr. **Yates**. How hurtful will this be to the States?

Mr. **Hester**. It will reduce the research and graduate level training, to some extent, and the extension and demonstration types of work.

Mr. **Yates**. Will the States still continue their research on their own funding?

Mr. **Hester**. They can still continue research on their own funding.

Mr. **Yates**. They can, but will they?

Mr. **Hester**. There were some States that even had cooperative units with the universities, even in the absence of Federal cooperation. So there will be some that will continue. I do not necessarily imply there will be 50 units continued under some form, or even a major fraction of those.

EXOTIC FISH LABORATORY—GAINESVILLE

Mr. YATES. I notice here, combined cooperative fish and wildlife research units with the University of Florida, Gainesville, $137,430. Does this include the new exotic fish laboratory?

Mr. HESTER. It does not.

Mr. YATES. What is the status of that?

Mr. HESTER. I think there is a rescission.

Mr. YATES. I know about the rescission, but how far has that project advanced?

Mr. HESTER. Through the planning stage.

Mr. YATES. No groundbreaking?

Mr. HESTER. I think there has been some well-testing.

Mr. BUTERBAUGH. Yes, the site has been cleared and soil-testing has been completed. Wells have been drilled and power lines are into the site.

But there has been no actual construction on the site.

Mr. YATES. Can it be delayed?

Mr. BUTERBAUGH. It can be delayed.

Mr. YATES. How will that hurt your research? Can you do that exotic fish research at another lab?

Mr. HESTER. Most of the research that will be done there can only be done there. The site was specifically selected for the kinds of fish that would be raised.

Some of the work, perhaps, can be done by contract, as we have done in the past, with other universities in Florida.

Mr. YATES. What is the nature of the research that would be done with other universities?

Mr. HESTER. There are two types of research, basically. One is what I think of as a review of the literature, that is, what is known about some of these exotic fishes in their countries of origin, or in other countries to which they have been imported. So some of it is a library-type research, simply to document what's happened as the fish have been introduced.

Mr. YATES. Maybe we ought to know what an exotic fish is.

Mr. HESTER. One that is not from this country.

Mr. YATES. How many kinds are there?

Mr. HESTER. Hundreds, even thousands. Some of them are fish that are used in the commercial pet trade, for example, tropical fish. Many of these are tropical fish that cannot even survive in the wild in this country, but some of them are.

Some of them have the potential for becoming major pests in this country. That is exactly the purpose for which we proposed to have the laboratory, to look at both the good and the bad aspects of exotic or alien fish brought into this country.

Mr. YATES. Have any fish such as piranhas been introduced?

Mr. HESTER. Yes, they have.

Mr. YATES. Are they in the streams of this country?

Mr. HESTER. They have been found living in the wild in Florida.

Mr. YATES. Are they flourishing?

Mr. HESTER. Mr. Buterbaugh might answer that.

Mr. BUTERBAUGH. In the two instances of which we are aware in Florida where piranha have been found, neither have reproducing populations. They have been mature adults, but there's never been young fish found. They were destroyed.

One population happened to be in an abandoned swimming pool.

Mr. YATES. How did they get there?

Mr. BUTERBAUGH. There are a number of ways, but the likely way is that people get tired of them or when cleaning their aquarium. They flush them down the drain and they go into the water courses. Or they get tired of them and release them in the closest stream. Some of them survive and grow up.

As far as we know, there has been no natural reproduction in the United States of piranha at this point. It could easily happen if the right circumstances presented themselves.

Mr. YATES. You started to talk about the types of research. First was the library type.

Mr. HESTER. Yes. The second type is active experimentation. We introduce the fish into, let's say, a small experimental pond to determine their rate of reproduction, their food habits, their competition with other species and so forth, to try to answer these questions under controlled conditions.

Certain types of those experiments can be conducted perhaps in an aquarium and other ways. Those, plus the library research, we can contract out for other people to help us with.

The ones where we place them in ponds, however, requires a certain degree of confinement. That is, it has to be a closed-water system so they can't swim out into the nearest body of water, or that people can't come in and get them out and carry them away, because we would be testing potentially harmful fish.

We will also test those that have the potential to be very beneficial, used in aquaculture, agriculture of acquatic organisms such as types of fish or shrimp used commercially.

Some are very important in other countries. If aquaculture grows in this country, it would be important to know which of those should be brought in or kept out.

One way to do that is through a facility such as we have described. So part of the concept is a series of ponds or pools that would be under closely controlled conditions so as to prevent their escape into the wild while they are being studied.

So on that part, that would have to be withheld, postponed until we could have such a facility. Some of the research could continue and some would have to be held back.

Mr. YATES. Do you have an agreement with the University of Florida whereby in consideration of the government constructing this laboratory, the University is going to construct another kind of laboratory?

Mr. BUTERBAUGH. I am unaware of that type of an agreement. The University donated the land for this facility, but I am not aware that it is tied into any formal agreement.

They may have plans for development tied to this facility, but it is not a formal agreement.

Mr. YATES. Let's come back at 1:30.

AFTERNOON SESSION

REFUGE WATER RIGHTS

Mr. YATES. On page 44 the justification says that you want $146,000 for water rights. What will the cost be to Fish and Wildlife Service to find out what the water rights needs of the refuges are for a ten year time frame?

Mr. MYSHAK. A ten year time frame, did you say, sir?

Mr. YATES. Yes. You have a ten year time frame, haven't you? Aren't you going to determine what your needs are over the next ten years for refuges?

Mr. MYSHAK. We don't have that worked out for ten years. For the present year, $179,000 will be the cost.

Mr. YATES. To do what in 1981?

Mr. MYSHAK. The quantification of water and defending ourselves, if you will, in the various jurisdictions out West to assure that we have our fair share of the water.

Mr. YATES. What do you mean defending yourself? Are you in water rights cases?

Mr. MYSHAK. Yes, for the allocation of water. We are out to get our share.

Mr. YATES. Are you in water rights cases out there? I know the Indians are in court on some of the water rights questions. Are you also in court?

Mr. MYSHAK. Yes.

Mr. YATES. What is the nature, how many cases are you in court on?

Mr. LAMBERTSON. Mr. Chairman, if I could comment on that, having been formerly in the Solicitor's Office. There are a number of adjudications in the State of Colorado. Several of those have fish and wildlife refuges in them.

Mr. YATES. Are they the only ones?

Mr. LAMBERTSON. I think there are some cases that have also been filed in Montana, one involving primarily Indian rights also involves refuges. Any time they go in with these large statewide adjudications to resolve Indian rights, they usually pull in some national parks and wildlife refuges at the same time.

Mr. YATES. How many of your refuges are being jeopardized for want of water?

Mr. PULLIAM. I don't know specifically. There are several in the Western states, where the Fish and Wildlife Service has no water rights. One example is the Stillwater Refuge in Nevada. It is tied up in the Truckee-Carson litigation that dates back 40 or 50 years, I guess, in that particular case. Basically all we get there is return flows surplus water left over from irrigation. That is the case in several areas, like the Kern Refuge in California, and Pixley in California. So we have several examples, but I cannot tell you precisely how many.

LAW ENFORCEMENT EFFORTS

Mr. YATES. How much poaching occurs on refuges?

Mr. **Pulliam**. Not a great deal. Most of the refuges are posted. We have law enforcement officers assigned, too. I would suspect, roughly one half of them.

Mr. **Yates**. Here is an article that was in The Washington Post January 23rd. A three month investigation into the illegal killing, sale and interstate transportation of wildlife, much of which winds up on Washington area dinner tables, has resulted in charges against 18 suspects in Virginia, Maryland and three other states. Aren't you involved in that?

Mr. **Hester**. We are certainly involved in the law enforcement aspect.

Mr. **Yates**. I would think so, but this is just one small part of your total empire. What happens in other parts of it? This talks about fishing.

Then we have a statement by Darcy Davenport. "We are just scratching the surface. We have four federal agencies to deal with in West Virginia. I wouldn't call that ridiculous. You couldn't print what I would call it."

Is none of this happening in other parts, to other fish and wildlife refuges?

Mr. **Hester**. First off, the illegal acts there were not necessarily conducted on national wildlife refuges.

Mr. **Yates**. Then I will amend my question. I started to ask you whether this happens on any of your refuges? Is there any poaching, invasion, or trespassing?

Mr. **Hester**. There have been examples.

Mr. **Yates**. Just a few? It is not widespread?

Mr. **Pulliam**. In 1980 we opened 3,800 law enforcement cases on national wildlife refuges.

Mr. **Yates**. How many?

Mr. **Pulliam**. Thirty-eight hundred.

Mr. **Yates**. That is an awful lot.

Mr. **Pulliam**. That includes game violations, recreational violations, littering. The whole gamut of violations that may occur on refuges.

Mr. **Yates**. Do you lose any of your charges as a result of poaching? What about your animals?

Mr. **Pulliam**. Certainly we do. There is poaching going on. As to precise numbers, I can't tell you that.

Mr. **Yates**. Law enforcement efforts have concentrated on species whose populations are low, such as the canvas back and red head ducks, and eagles and owls. Commercialization and easement. Baiting and closed zone hunting were the biggest problems. Many of the major convictions involved possession and sale of protected species.

Mr. **Pulliam**. That involves the federal laws our Law Enforcement Division enforces?

Mr. **Yates**. This shows you had investigations at the start of the fiscal year 1980, pending at the start of the fiscal year, 978; opened, 14,383, closed, 13,928. Then you expect more for 1982. These deal with licenses? Nothing major?

Mr. **Myshak**. No sir. A lot of these deal with shooting over the bag limit, commercialization, illegal trafficking and marketing of waterfowl, and confiscations at ports of entry.

Mr. Yates. Do you have people at the ports of entry?

Mr. Myshak. Yes sir.

Mr. Yates. Have there been violations discovered at ports of entry?

Mr. Myshak. Yes sir.

Mr. Yates. How many? Can you answer that one?

Mr. Lambertson. Yes, I have a figure here. During the year 1981, we anticipate 5,300 law enforcement investigations at both ports and non-ports, for the endangered species program alone. If you would take the Lacey Act and add to that the Marine Mammals Act, that number would increase substantially. We inspected actually 19,000 shipments at the ports of entry during 1980 and 1981.

Mr. Yates. Your justification respecting 1980 at ports of entry, says that 16,000 wildlife shipments were physically inspected to detect possible violations. It does not say how many violations there were, or were discovered. Can you tell us that?

Mr. Lambertson. Yes. I am not sure we have an exact figure on that. It gets very fuzzy at that point. A number of these violations are technical violations by tourists. The item is forfeited on the spot. So it is hard to count that as a law enforcement case.

Mr. Yates. Have you found any animals such as snakes and items such as elephant tusks being brought in?

Mr. Lambertson. Absolutely. There is heavy introduction of ivory into this country at the present time.

Mr. Yates. Is that legal?

Mr. Lambertson. It is legal if it has proper documentation.

Mr. Yates. That means having been done years ago?

Mr. Lambertson. No, it means being in compliance with the CITES convention. If it has the proper permit from the country of origin.

Mr. Yates. Are you circulating a draft manual now? What is your draft manual about?

Mr. Myshak. Yes.

Mr. Pulliam. It is a field manual to be used by our refuge employees containing all the policy, all the operating guidelines relating to management of our national wildlife refuges.

Mr. Yates. How do they keep track of all your press releases that come out.

Mr. Pulliam. Press releases?

Mr. Yates. Yes.

Mr. Pulliam. I don't understand your question.

Mr. Yates. You have a manual telling them what your policies are, but then there are press releases that are issued during the course of the year saying what changes occur in policy.

Mr. Pulliam. Well, policy can come about in many ways. It can come about through letters that the Secretary may sign, or announcements he may make in press releases.

Mr. Yates. These are all added as a part of the manual?

Mr. Pulliam. Yes, they are incorporated as changes occur.

Mr. Yates. How do you decide how much money to put in?

Mr. Pulliam. Periodically, we go to our field stations asking our field project leaders for budget data. The last comprehensive budget was put together in 1979. We update that for inflation.

ALASKA ARCTIC COASTAL PLAIN STUDY

Mr. YATES. You want a $400,000 increase for the Alaska National Wildlife Refuge Coastal Plain Resource Assessment. What happens if you don't get that money?

Mr. PULLIAM. Section 1002 of the Alaska Lands Act, passed December 2, 1980, calls for that study. Basically, it is a comprehensive study of the coastal plain to determine the possible effects of oil and gas leasing on wildlife populations. The United States Geological Survey has the lead in that study. The Fish and Wildlife Service is responsible for surveys and censuses of the wildlife populations on the coastal plain. We will work cooperatively with the USGS to assess the impacts of any potential oil or gas that may be found on the ranges, and exploration therefor.

Mr. YATES. I have a letter dated May 4th from the World Wildlife Fund in which he encloses a copy of a letter from Congressman Breaux and also Congressman Forsythe, suggesting that $18 million be reallocated within the Department of the Interior to alleviate the particularly severe reductions suffered by the Fish and Wildlife Service. We attach a copy of Congressman Breaux's suggested budget changes which we support in principle.

The distribution of his recommended increases reflect the growing concern that the state-federal partnership throughout the wildlife management programs be maintained to properly conserve our living resources. Mr. Breaux suggests that for coal operations an additional $750,000 be added. I put his recommendation into the record at this point as part of it.

[The information follows:]

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U.S. House of Representatives
Committee on
Merchant Marine and Fisheries
Room 1334, Longworth House Office Building
Washington, D.C. 20515

MAJORITY COUNSEL
LAWRENCE J. O'BRIEN, JR.

MINORITY COUNSEL
MICHAEL J. TOOHEY

April 22, 1981

Ms. Nicole Duplaix
Director
TRAFFIC (USA)
1601 Connecticut Avenue, N.W.
Washington, D. C. 20009

Dear Ms. Duplaix:

The Subcommittee on Fisheries and Wildlife Conservation and the Environment recently submitted recommendations to the Merchant Marine and Fisheries Committee and the Budget Committee on the budgets proposed by the Administration for the agencies over which we have jurisdiction. Because of your organization's interest in the conservation of fish and wildlife resources, we are sending you a summary of our recommendations concerning the budget of the Fish and Wildlife Service. These recommendations are the result of a considerable effort by the Members of our Subcommittee and we think they represent a rational approach to reducing federal expenditures, while at the same time continuing those services necessary to conserve wildlife resources.

In preparing the recommendations, we were guided by the following broad principles. First, we believe that the State-Federal partnership throughout the field of wildlife management must be maintained in order to properly conserve our wildlife. While we believe that grants and subsidies to states can be reduced, we believe that the reductions should be carried out in an impartial manner and that we should not completely eliminate funding to the States for some programs while increasing it in others. Thus, we have recommended restoring some of the Administration's cuts in the Cooperative Fish and Wildlife Units Program, as well as funds for programs which provide Endangered Species and Anadromous Fish grants to States. In order to balance these increases, we have recommended decreases in the resident wildlife component of the Animal Damage Control Program and that part of the fish hatchery program which supports recreational fisheries in State waters. These programs, no less than the Cooperative Units Program and the Endangered Species Grant Program, are subsidies to State agencies.

Second, we believe that in these times of increased energy and strategic minerals production, which we support, we should not reduce that component of the Fish and Wildlife Service which examines and comments on the effects of those activities on fish and wildlife. Consequently, we have recommended increases in the Service's Habitat Preservation Program.

Finally, we are convinced that the administration of the Fish and Wildlife Service can be streamlined. We have recommended a decrease in funds for the area offices because we think their function is duplicative of the activities carried out in the regional offices. We have also recommended cuts in the program and budget staffs of the Director and various program managers because of an overlap of their responsibilities.

We will be testifying before the House Subcommittee on Interior Appropriations in early May. We hope that you will examine our proposals carefully and consider joining with us in these recommendations when you testify before the House and Senate Appropriations Committees.

Sincerely,

EDWIN B. FORSYTHE
Ranking Minority Member
Subcommittee on Fisheries
and Wildlife Conservation
and the Environment

John Breaux
JOHN B. BREAUX
Chairman
Subcommittee on Fisheries
and Wildlife Conservation
and the Environment

Attachment

FISH AND WILDLIFE SERVICE

Recommended Increases To Reagan Administration Budget Totalling $18,000,000

I. Resource Protection		
A. Habitat Preservation		
1. Coal operations	$ 750,000	
2. Coal Research and Development	250,000	
3. Permits and Licenses	500,000	
4. Water Resource Analysis	500,000	
5. Coastal/OCS	200,000	
6. Cooperative Fish and Wildlife Units	3,000,000	
Habitat Preservation - - - - - - Subtotal	$ 5,200,000	
B. Wildlife Resources		
1. Marine Bird Research	$ 250,000	
2. Alaska Caribou Study	300,000	
3. Nongame Program	1,000,000	
Wildlife Resources - - - - - - Subtotal	$ 1,550,000	
C. Fisheries Resources		
1. Bristol Bay Study	$ 500,000	
2. Fishery Research Operations & Management	250,000	
Fisheries Research - - - - - - Subtotal	$ 750,000	
D. Endangered Species		
1. Grants to States	$ 2,000,000	
2. Recovery and maintenance	1,000,000	
3. Law enforcement	500,000	
Endandered Species - - - - - - Subtotal	$ 3,500,000	
Resource Protection	TOTAL	$11,000,000
II. Construction and Anadromous Fish		
A. Grants to States - - - - - - Subtotal	$ 1,250,000	
B. Striped Bass program - - - - - - Subtotal	$ 750,000	
Construction and Anadromous Fish	TOTAL	$ 2,000,000
III. Refuge Revenue Sharing	TOTAL	$ 5,000,000
	GRAND TOTAL	$18,000,000

Recommended Decreases To Reagan Administration Budget Totalling $18,000,000

Cuts Within The Fish and Wildlife Service

I. Resource Protection			
A. Animal Damage Control Resident Wildlife Operations	$ 4,000,000		
B. Fish Hatcheries	3,500,000		
C. Administration			
1. Area Offices	1,000,000		
2. Program & Budget Offices	700,000		
Resource Protection --------------------		TOTAL	$ 9,200,000

Cuts From Other Agencies Within The Department of Interior*

I. Bureau of Land Management-- Payment in Lieu of Taxes Fund ------------	TOTAL	$ 5,000,000
II. U.S. Park Service Park Construction Fund --------------------	TOTAL	$ 3,800.000
	GRAND TOTAL	$18,000,000

* We are recommending these cuts because we believe that the Fish and Wildlife Service suffered a greater level of reductions than some of the other agencies in Interior. With regard to the Payment in Lieu of Taxes Fund in the Bureau of Land Management, we understand that the Administration will propose legislation to include the Refuge Revenue Sharing Payments in that Fund. We believe the Refuge Revenue Sharing Fund meets the particular needs of the Refuge System and recommend that $5 million of the proposed $45 million budget for Payment in Lieu of Taxes be diverted to the Refuge Revenue Sharing Program. With regard to the recommended cuts in the Park Service Construction Program, we merely point out that the Park Service Construction budget was left untouched by the Reagan Administration, whereas the Fish and Wildlife Service Construction budget was reduced by 75 percent. We believe that agencies should share more equally in the budget reductions.

BRISTOL BAY STUDY

Mr. **Yates**. He wants $500,000 for the Bristol Bay study. Who can tell us about the Bristol Bay study?

Mr. **Pulliam**. Bristol Bay study is required by the Alaska Lands Act. It is a comprehensive study of the entire Bristol Bay region of Alaska.

Mr. **Yates**. You have money for the study in the budget.

Mr. **Pulliam**. No.

Mr. **Yates**. Is it an important study to be made?

Mr. **Pulliam**. I would say yes. The Congress mandated that be done.

Mr. **Yates**. By when?

Mr. **Buterbaugh**. By December 1983, a comprehensive management plan must be completed.

Mr. **Pulliam**. December 1983.

Mr. **Yates**. I think at this point we will put into the record the letter dated May 4th by the National Wildlife Federation addressed to me. Also, one dated April 20 from the International Association of Fish and Wildlife Agencies. They may go into the record at this point together with the other one.

[The information follows:]

NATIONAL WILDLIFE FEDERATION
1412 Sixteenth Street, N.W., Washington, D.C. 20036 202—797-6800

May 4, 1981

Representative Sidney R. Yates, Chairman
House Appropriations Subcommittee on Interior
Rayburn Office Building, Room # B-308
Washington, D.C. 20515

Dear Representative Yates:

It was our privilege on February 24, 1981, to submit preliminary testimony to your Subcommittee on the Fish and Wildlife Service's FY '82 budget. Since at that time none of us officially had the new administration's proposed rescissions, we would like to take this opportunity to submit these additional recommendations for the record.

Thank you for this opportunity to express our views.

Very truly yours,

Jay D. Hair

JAY D. HAIR
Executive Vice President

Supplemental Appropriations Recommendations
by the Fish & Wildlife Team
Resources Defense Division
National Wildlife Federation

The Fish and Wildlife Service

The administration's budget revisions for FWS total $65.6 million in budget authority for FY '82, and nearly $10 million in a recisiion of FY '81 funds.

We believe these cuts to be disproportionate in relation to the size of the Service's budget, especially when viewed in comparison to the relatively small proposed cuts for the development side of the department, e.g. Water Resources Development. In a document we prepared for the Budget Committee in cooperation with several other environmental organizations, we made function-by-function recommendations which when taken together actually would result in larger overall cuts, but in a more environmentally sensitive manner. A copy is attached for your interest.

In regard to FWS specifically, we feel that the cuts to programs have been administered in a highly inequitable fashion, with little attention paid to the long range ecological value of their more biologically sensitive programs. We would be less inclined to object to across-the-board cuts of perhaps 10%; we do, however, object to the selective program cuts now proposed by the administration.

Endangered Species

This program, one of the most valuable in the Service, has been proposed for a cut of approximately one-third. Listing which was only $2.8 million at the outset, is to be cut by $1.5 million. This is an extremely bad decision, as the listing process was just recovering from the regulatory burden placed upon it by the

Congress and beginning to function as it had originally been intended. Data was being gathered and processed about the forms of life about which we know the least, invertebrates and plants. This process was never intended to be a hindrance to federal development projects, but rather a mechanism to preserve genetic diversity for our future use.

The enforcement and recovery programs have also been cut, and the Section Six state grant program has been zero funded. The loss of Section Six funding is particularly serious because in the 38 states which have developed cooperative agreement programs, this Federal funding is often the only money expended on non-game species. We recommend replacing $7 million to this nationally popular, and internationally acclaimed, program.

Refuges

The administration's moratorium on Federal land acquisition and the major cuts in the Land and Water Conservation Fund will probably doom thousands of acres of Louisiana Bottomland Hardwoods to soybean production. The habitat loss for game, waterfowl, fish, and furbearers, not to mention the loss of environmentally essential properties such as flood control and dilution of pollutants would be irreparable. We recommend carrying out the Congressional mandate to acquire both the Bogue Chitto and the Tensas National Wildlife Refuges. Delays in acquisition can only result in higher real estate costs and also risk the conversion of these valuable ecosystems to agricultural use.

Habitat Preservation

In light of the moratorium on Federal lands acquisition, the only Federal safequard we have for wetlands is the 404 program which was created within the Clean Water Act.

Cuts to Ecological Services Permits and Licenses Program would impede the valuable biological consultation services provided by FWS to the 404 decision-making process. The Area Wide Planning Division provides (among other things) a state assistance program for state compliance with the 404 program. Neither of these cuts will save time or dollars, as delays in permitting can only increase costs of development.

The Office of Biological Services has proposed cuts in all their energy development program areas. Given this administration's avowed intent to accelerate energy development on public lands, we find cuts to these programs to be highly inappropriate. FWS is the only agency which, within OBS, is developing fish and wildlife mitigation plans for energy development. They are studying the impacts of various kinds of development, analyzing the impacts (acid rain, low level instream flows, etc.) and using the most sophisticated equipment available and creating standardized mitigation formulas which can be easily tailored to meet specific project needs. The benefit of this work is the speed with which mitigation plans can now be developed and plugged into project development at the earliest stages. Much more research and analysis must be invested in this process to insure adequate protection of fish and wildlife habitat for the health of the ecosystems which they inhabit, and for the use in perpetuity by our nation's subsistence hunters and sportsmen.

Secretary Watt stated during his confirmation hearings, which were chaired by Senator McClure, that it was necessary to begin development of our energy resources now in order to assure that it is done with sensitivity to the environment. He suggested that if we postpone development until our need is desperate, there will be little likelihood of environmental mitigation. We agree that time must be taken to do this task right, if we are going to do it. Therefore, we urge your committee to restore $5 million to the Habitat Preservation Program.

The Administration reductions would zero fund the FWS Cooperative Research Unit Program. Our membership strongly supports this program and we urge that it be funded at its FY '81 level. This funding goes directly to state, federal, and national fish and wildlife research needs. The FY '81 federal budget contribution to the Cooperative Research Unit Program was $4.9 million dollars. The total operating budget of the Cooperative Units was $13.7 million. The Coop staff used the federal money to raise an additional $9.3 million from state, federal, and private sectors. This represents almost a two to one return for the federal/state dollars.

Research conducted by CRU does not duplicate research done by other U. S. Fish and Wildlife Service programs. Indeed, many USFWS offices contract with the CRU program for their research needs.

Zero funding for CRU would end federal involvement with this valuable program, and a loss of a focus and coordination of national research needs would result. The loss of this valuable research program would put additional pressure on the USFWS facilities. The Service will lose approximately 40 percent of its research capabilities. State conservation agencies, as well, will have their research potential significantly reduced by these cuts. Some of these states are Idaho, Iowa, Maine, Virginia, Alabama, and Louisiana. Oklahoma and South Dakota will lose almost all of their wildlife research capability. Responsible stewardship requires reliable, biological research. Resource managers will be forced to make management decisions without the adequate data required. We urge that the Cooperative Research Unit Program be funded at its FY '81 level.

Marine Bird Research

Very little hard data exists on the interrelationships of species in the marine ecosystem. This void coupled with our concern over the high numbers of pelagic birds taken incidentally to fisheries operations moves us to request $250,000 in funding for marine birds.

Marine Mammals

Marine mammals, like marine birds, are a resource for which we have little data. We feel that the Marine Mammal Grant program must be funded for this reason and also to aid states in developing their own marine mammal management programs.

Alaska Studies

These studies, which were mandated by the Alaska Lands Bill last year must be carried out. Alaska's ecosystems are too fragile to allow development without prior impact research. We recommend the addition of $800,000 for these purposes.

Nongame Funding

The Fish and Wildlife Conservation Act of 1980 authorized $5,000,000 for the next three years. This money is to be used by states to develop their own nongame programs and begin to move them toward more comprehensive species management concept. We therefore urge the committee to fund this fledgling program at $1,000,000, although we believe that after an initial "start-up" period states should themselves take responsibility for nongame management.

Animal Damage Control/Fish Hatcheries -

We are recommending cuts to these programs because we feel that: a) There are less costly alternatives to the Federal A.D.C. program that should be implemented, and b) That except in the cases of highly migratory fish and endangered fish species, the states should begin to take over responsibility for local hatcheries.

RECOMMENDED INCREASES TO REAGAN ADMINISTRATION BUDGET

ENDANGERED SPECIES

Enforcement	$ 500,000
Listing	1,500,000
Maintenance and Recovery	1,000,000
Section 6 Grants	4,000,000
Total	$7,000,000

HABITAT PRESERVATION

ECOLOGICAL SERVICES

Permit and Licenses	$1,000,000
Area Wide Planning	1,000,000

OFFICE OF BIOLOGICAL SERVICES

Coal Research	500,000
Coal Operations	500,000
Power Plants	1,000,000
Water Resources	500,000
Geothermal and Oil Shale	500,000
Total for Habitat Preservation	$5,000,000

RESEARCH/WILDLIFE RESOURCES

Cooperative Fish & Wildlife Units	$4,000,000
Marine Bird Research	$ 250,000
Alaska Caribou Study	300,000
Bristol Bay Study	500,000
Marine Mammal Grants	400,000
Sikes Act	420,000
Nongame Program	1,000,000
Total	$2,870,000

FISHERIES RESOURCES

Anadromous Fish	$1,000,000
Striped Bass Program	500,000
Total	$1,500,000
	$20,370,000

RECOMMENDED DECREASES FOR REAGAN ADMINISTRATION BUDGET

Animal Damage Control	$ 7,430,000
Administrative/Washington Offices .	1,000,000
/Regional Offices . .	740,000
Fish Hatcheries	7,000,000
Total FWS Cuts	$16,170,000

Fred

I.A.F.W.A.

International Association of Fish and Wildlife Agencies

1412 16th STREET, N.W. WASHINGTON, D.C. 20036 (202)232-1652

Jack H. Berryman, Executive Vice President

April 20, 1981

The Honorable Sidney R. Yates, Chairman
House Appropriations Subcommittee on
Interior and Related Agencies
Room B 308
Rayburn House Office Building
Washington, DC 20515

Dear Mr. Chairman:

As you know, the International Association of Fish and Wildlife Agencies represents state and federal entities concerned with conservation and management of fish and wildlife resources.

Many of the activities undertaken by its members for that purpose come within the province of the Interior Department's Fish and Wildlife Service and the Commerce Department's National Marine Fisheries Service. Hence, we have a direct interest in the respective budgets of those agencies. And because effective operation of some of the priority programs in which the state members are engaged depends on federal grants-in-aid, we are deeply concerned by the prospect of elimination of funding for all such assistance in Fiscal 1982.

We very much hope that possibility can be avoided without prejudicing the Administration's cost-cutting efforts.

It is with that objective in mind that the Association has developed the budget alternatives outlined in the attachment to this letter.

We recommend, among those changes, restoration of the state grant provisions. Recognizing the necessity for fiscal restraints, however, we also propose spending reductions in other aspects of those agency budgets.

In our judgment, this course will serve both the needs and best interests of our members and the cause of fiscal responsibility.

Your subcommittee's full consideration of, and hopefully your concurrence with, those recommendations as you deal with the related appropriations issues coming within your area of jurisdiction will be much appreciated by the Association and its membership.

Respectfully,

Wesley F. Hayden
Legislative Counsel

FEDERAL BUDGET RECOMMENDATIONS

International Association
of Fish and Wildlife Agencies
April 10, 1981

The following summary outlines the position developed for the International Association relative to changes in the respective budgets of the Fish and Wildlife Service and the National Marine Fisheries Service at the direction of the Association's Executive Committee.

It is the consensus of the Ad-Hoc Committee given the assignment that the suggested funding revisions will advance the best interests of the Association and its member states and the changes are commended for consideration in that context.

FISH AND WILDLIFE SERVICE
(Recommended Funding Increases)

1. Endangered Species: This program is considered to be of primary interest to individual states and essential to their efforts to protect and preserve rare species from extinction.

It is therefore recommended that $4 million be restored to the Fiscal 1982 budget for funding of program grants to states.

2. Anadromous Fish: Measures for conservation, development and enhancement of anadromous fish resources coming under Fish and Wildlife Service jurisdiction are dependent on continuation of funding for this item.

The budget as it now stands provides no money for the purpose but we recommend restoration of $3.5 million for the year.

3. Southeast Wildlife Disease Study: This concerns a research project initiated at the University of Georgia in 1957 and carried on since that time for identification and evaluation of diseases and parasites common to game and domestic animals. Results of the study have contributed significantly to improve wildlife management and the item is included in the priority list at the request of the Southeast Association.

A budget addition of $200,000 is recommended for that purpose.

4. Cooperative Fish and Wildlife Research Units. Established in 1936, the 50 cooperative units have provided a continuing source of trained manpower and factual information essential to state and federal fish and wildlife management efforts. They have sustained a mutually supportive relationship between the land grant colleges, where the units are located, the state and federal wildlife agencies, and private wildlife management.

A restoration of $4 million of the deleted $4.9 million is recommended for Fiscal 1982 program support.

5. Peregrine Falcon Restoration: A cooperative project being carried out at Cornell University to develop procedures for raising these falcons in captivity and subsequent release and re-establishment in their natural habitat. This project began in the Northeast but now involves other regions of the country and the undertaking involves support from federal, state, and private interest groups.

No funding is provided in the Fiscal 1982 budget and it is recommended that $300,000 be added for that purpose.

6. Non-Game Program: Authorized under the Fish and Wildlife Conservation Act of 1980, this program is intended as an incentive to states to develop management programs for non-game species—those not hunted for sport, subsistence, or economic reasons.

The legislation authorizes $5 million in matching grants to states in each of the next three fiscal years but no provisions is made in the Fiscal 1982 budget. We recommend that $3 million be added for that item.

The increases recommended for the Fish and Wildlife Service activities toatl $15 million.

(Recommended Funding Decreases)

To offset that additional spending we are recommending reductions in other Fish and Wildlife Service budgetary objectives totalling just under $16 million.

Those recommended reductions include the following:

1. Animal Damage Control: This cooperative program is designed to address the problem of wildlife depredations.

The Association supports that objective as worthwhile and necessary and has, in other papers, recommended improvement. But it is believed that it can be accomplished with somewhat less than the budgeted total of $18.2 million for Fiscal 1982.

It is therefore recommended that the figure be reduced by $4 million.

2. Area Offices: The Fiscal 1982 budget provides approximately $6.8 million for operation of these units, which are part of an agency organizational structure which also includes field and regional offices in various parts of the country and with its central office in Washington.

There appears to be some duplication of effort in such an arrangement which could be eliminated with a resultant saving in money and effort.

We, therefore, recommend a $1 million reduction in the budget figure for the year as the first step toward reorganization and streamlining of the system.

3. Administration-Planning: There also appears to be some over-emphasis on, and some duplication of effort between, program development and budget planning operations which, if eliminated, could result in monetary saving.

We, therefore, recommend a reduction of $700,000 in the budget figure of approximately $1.4 million for that phase of the service operation.

4. Fish Hatcheries: The Fiscal 1982 budget for the hatchery system operated by the Fish and Wildlife Service throughout the country is approximately $25.6 million.

It is recommended that this amount be reduced by $3.5 million by selective curtailment of operations.

5. Alaska Refuge Management: An allocation of $1.9 million is included in the Fiscal 1981 supplemental appropriation for the Fish and Wildlife Service to cover start-up costs for operation of nine new refuges and seven expanded ones provided under Alaska National Interest Lands Conservation Act. Another $3.8 million is provided in the Fiscal 1982 budget for Alaska refuge management.

Based on assurance that these are objectives with longe-range worth but which can be postponed, if necessary, for the moment without significant damage to the state's interests, the Association recommends elimination of these funds from current budget consideration, with a total saving of $5.7 million.

6. Alaska Fishery Assistance on Refuges: There is a separate provision in the Service Budget for Fiscal 1982 for approximately $1 million to fund this program.

That objective, however, is related to those referred to above (in item 5) and would therefore be addressed in the same general frame of reference.

For that reason, it is recommended that the $1 million figure be among those eliminated from the budget.

U.S. DEPARTMENT OF INTERIOR
(Recommended Decrease)

International Convention Advisory Commission (ICAC): The ICAC was created on the premise that the Secretaries with authority for administering the Convention on the Control of International Trade in Endangered Species (CITES) could not be expected to render impartial decisions on factors related to population status and impacts of trade. In our opinion, the professional staff of the Commission is duplicative and its functions can be absorbed by the U.S. Fish and Wildlife Service without prejudice to the resources involved.

A reduction of $275,000 is, therefore, recommended from the $315,000 figure budgeted for ICAC in Fiscal 1982.

NATIONAL MARINE FISHERIES SERVICE
(Recommended Increases)

1. Commercial Fisheries Research and Development: This program, authorized under Public Law 88-309, provides grants to states covering 75 per cent of the cost of research and development activities relating to commercial fisheries and has assumed even greater significance since passage in 1976 of the Fisheries Conservation and Management Act.

In the Association's judgement, the proposed elimination of funds for this program from the Fiscal 1982 budget would have a serious impact on state efforts in that field.

We consequently recommend restoration of the entire $5 million originally requested for those activities.

2. Anadromous Fish: Initially authorized under Public Law 89-304, this program is another valuable assist to states in their fisheries research and management undertakings and particularly in their effort to realize the full potential of salmon and other anadromous stocks in the face of sometimes adverse circumstances.

For that reason the Association considers continued funding of the grant provisions of the program necessary and appropriate and recommends that $2 million be restored to the Fiscal 1982 NMFS budget.

3. Saltonstall-Kennedy Act: As amended by the American Fisheries Promotion Act (Public Law 96-561), the legislation is a source of substantial grant-in-aid support for qualified projects in fishery education, research and development.

It has the capacity for significantly improving the competitive posture of American seafood products and for expanding the domestic fisheries market.

It has the further advantage, in this period of budgetary constraints, of being financed from a share of the proceeds of duties on foreign fishery imports accumulated in a trust fund and designated for S/K program use rather than having been derived from domestic tax sources.

The legislative mandate for use of those funds is clear and precise and the Association, on that basis and in recognition of the derived benefits, recommends that the $10 million proposed for elimination from the Fiscal 1982 budget be reinstated in full.

(Recommended Funding Decreases)

1. Pribiloff Island Services: This item in the National Marine Fisheries budget covers provision of home heating oil, electric power and other municipal services to residents of the Pribiloff Islands in Alaska. It is the NMFS position that these services are more properly a function of state or municipal government.

This Association concurs in that judgement and recommends deletion of the $5.8 million provided in the NMFS budget for that item.

2. Marine Resources Monitoring Assessment Program (MARMAP): This is the agency's principal activity in the field data collection and stock assessment.

It is the Association's perception, however, that fishery management plans may be accomplished with somewhat less regulation with a reduced requirement for plan development data.

On that basis, we recommend a 10 per cent cut in the $31.7 million MARMAP budget for the year, effecting a reduction of $3.17 million.

3. Regional Fishery Management Councils: The councils are responsible for preparation of fishery management plans under provisions of the Fishery Conservation and Management Act and the Fiscal 1982 budget provides $5.9 million for their operations.

There is a growing feeling, however, that council administrative costs can and should be trimmed by reducing the number of meetings and resultant salary and expenses of members.

The Association's recommendation is for a budget reduction of $1 million for the year.

4. Fisheries Trade Assistance: The Fiscal 1982 budget for NMFS includes a new proposal for a $1.1 million program to expand U.S. Fish exports.

It is the agency's present opinion, shared by the domestic commercial fisheries trade, that the program is not necessary and should be deleted.

The Association concurs in that view and recommends the budget reduction of $1.1 million.

NOTE: The recommended budget increases for NMFS total only $7 million, (exclusive of the Saltonstall-Kennedy trust fund item), whereas recommended decreases total $11 million.

We believe this represents a responsible and successful effort to place focus on the needs and best interests of our members without prejudice to the cause of fiscal constraint.

Wes Hayden
Legislative Counsel
International Association of
Fish and Wildlife Agencies
April 10, 1981

International Association of Fish and Wildlife Agencies
FEDERAL BUDGET RECOMMENDATIONS
1982

	INCREASES	DECREASES
FISH AND WILDLIFE SERVICE		
Endangered Species	$ 4 million	
Anadromous Fish	$ 3.5 million	
Southeast Wildlife Disease Study	$ 200,000	
Cooperative Fish and Wildlife Research Units	$ 4 million	
Peregrine Falcon Restoration	$ 300,000	
Non-Game Program	$ 3 million	
Animal Damage Control		$ 4 million
Area Offices		$ 1 million
Administration Planning		$ 700,000
Fish Hatcheries		$ 3.5 million
Alaska Refuge Management		$ 5.7 million
Alaska Fishery Assistance on Refuges		$ 1 million
	TOTAL INCREASE - $15 million	TOTAL DECREASE - $15.9 million
U.S. DEPARTMENT OF INTERIOR		
International Convention Advisory Commission (ICAC)		$ 275,000
NATIONAL MARINE FISHERIES SERVICE		
Commercial Fisheries Research and Development	$ 5 million restored	
Anadromous Fish	$ 2 million restored	
Saltonstall-Kennedy Act	$ 10 million restored	
Pribiloff Island Services		$ 5.8 million
Marine Resources Monitoring Assessment Program (MARMAP)		$ 3.17 million
Regional Fishery Management Councils		$ 1 million
Fisheries Trade Assistance	*	$ 1.1 million
	TOTAL INCREASE - $17 million	TOTAL DECREASE - $11 million

*Includes $10 million in trust funds; see explanation in narrative.

IAFWA
Washington, DC
April 10, 1981

WORLD WILDLIFE FUND-U.S.®

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May 4, 1981

Congressman Sidney Yates
Chairman, Interior Appropriations Subcommittee
House Office Building
Washington, D.C. 20515

Dear Congressman Yates:

As Chairman of the Interior Appropriations Subcommittee you will be discussing tomorrow the proposed FY 82 budget of the U.S. Fish and Wildlife Service.

We have received and reviewed a letter from Congressman John Breaux, Chairman of the Subcommittee on Fisheries and Wildlife Conservation, suggesting that $18 million be re-allocated within the Department of Interior to alleviate the particularly severe reductions suffered by the Fish and Wildlife Service. We attach a copy of Congressman Breaux's suggested budget changes which we support in principle. The distribution of his recommended increases reflect the growing concern that the state-Federal partnership throughout the wildlife management programs be maintained if we are to properly conserve our living resources.

Another area of concern merits your attention, Mr. Chairman. The U.S. Fish and Wildlife's Law Enforcement Division is responsible for enforcing 14 statutes which include important international treaties such as the CITES (Convention on International Trade in Endangered Species). In the last five years the problems related to wildlife smuggling have shown a marked increase as evidenced by the growing number of indictments initiated by the Wildlife Section of the Justice Department.

The FY 82 budget of the Law Enforcement Division is woefully inadequate as it stands at $12,027,000. Even Congressman Breaux's proposed increase of $500,000 would not bring the budget up to its FY 81 level of $13,027,000. Law Enforcement has 36 wildlife inspectors (GS 4-5) and 209 Special Agents (GS 11) of which 9 will be mandatorily retired next year. Already the regional offices at the nine designated ports of entry openly acknowledge that they cannot cope with the inspection tasks of ever increasing wildlife imports and related paperwork.

If Law Enforcement is to maintain even a minimal operational level, their budget needs to be increased by a minimum of

$2,922,000 to $14,949,000. Should the present level of financing be maintained, at least five agents will have to be dismissed which will only further hinder and slow down their enforcement efforts.

We realize that in these parlous times, the nation's concern must be one of economy. However, it seems shortsighted to reduce the budget of the Division which prevents the smuggling of valuable wildlife. One smuggled parrot which enters the country undetected may not only represent a loss of revenue of $1000 or more, but could be a real threat to our multibillion dollar poultry industry should it be carrying Newcastle's disease.

We urge you to reconsider the Law Enforcement Division request for a more adequate funding. Thank you for giving consideration to this matter.

Sincerely,

Russell E. Train

Russell E. Train
President

Enclosure

Natural Resources Defense Council, Inc.

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5 May 1981

The Honorable Sidney Yates
Chairman
Subcommittee on Interior
B-308 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Yates:

The Natural Resources Defense Council (NRDC) wishes to acquaint the Subcommittee on Appropriations for Interior with our views concerning the Fiscal Year 1982 budget of the Fish and Wildlife Service. NRDC is a public interest environmental organization of 45,000 members dedicated to conservation of our wildlife and other resources.

Our analysis of the Administration's budget request indicates that the Fish and Wildlife Service, and the endangered species program in particular, have absorbed an unfair proportion of the budget cuts. The species of animals and plants listed pursuant to the Endangered Species Act or Convention on International Trade in Endangered Species of Wild Fauna and Flora are the most vulnerable of our living resources. Legal measures are in place to conserve them, but implementation of these programs is barely adequate. Severe reductions in these efforts, as contemplated in the Administration's request, may well result in the extinction of some species.

NRDC urges the Committee to redistribute funding cuts in order to minimize the risk of permanent loss of these valuable biological resources. In most matters, we concur with the carefully thought out recommendations of the Subcommittee on Fisheries, Wildlife Conservation, and the

Environment. Thus, we support its suggestions to continue the valuable Federal-State cooperative programs authorized by Section 6 of the Endangered Species Act by restoring funding at a level of $2 million, and to increase funding for the high priority recovery program by $1 million. Similarly, we concur in the restoration of $5.2 million to habitat preservation efforts during this period of accelerated development of energy resources which affects a broad range of wildlife habitat.

In addition, NRDC strongly urges an increase of $2.9 million for Law Enforcement, directed to controlling wildlife imports and exports. The Subcommittee on Fisheries and Wildlife has requested an increase of $500,000, but we do not believe that this amount is adequate to carry out this important and difficult task. At present funding levels there are only 36 wildlife inspectors, paid an average salary of $22,800, to handle an incredible volume of shipments - imports exceeded 2.5 million live mammals, reptiles, and amphibians and 151 million hides and other wildlife products in 1979.

These dedicated men and women can barely keep up with the shipments now; if the budget is cut, resulting in an absence of well-deserved promotions, many will probably leave the FWS for better-paying positions in other government departments. Loss of experienced inspectors will undermine the Service's ability to apprehend illegal traffickers.

The need for an aggressive law enforcement program is clear; the value of illegal wildlife imports was estimated at between $50 and $100 million in 1979. But the Administration's budget request would further impair the FWS' ability to curb this damaging trade by forcing reductions in the number of special agents and in the funds available for carrying out investigations. Currently, the Service employs 209 fully trained criminal investigators, whose salaries and operational costs average $55,700 each. To maintain the present level of effort in the face of rising costs, these agents require authorization to use up to $65,000, but the Administration's budget would force a cut to $50,400. This hobbling of investigator's efforts, combined with a reduction in the number of special agents, will cripple the Service's efforts to apprehend smugglers.

Therefore, NRDC urges the Subcommittee to increase funding for Law Enforcement by $2.9 million. We suggest that the funds in excess of the $500,000 increase recommended by the Subcommittee on Fisheries and Wildlife be obtained by additional reductions in the following programs: $250,000 from Construction Grants to States; $500,000 from the Striped Bass program; $900,000 from Animal Damage Control; and $800,000 from the fish hatchery program.

Thank you for your assistance in this matter. We look forward to working with you to conserve our precious living resources.

Sincerely,

Faith Thompson Campbell

Faith Thompson Campbell, Ph.D.

Mr. YATES. How much will the Bristol Bay study cost?

Mr. BUTERBAUGH. The Fish and Wildlife Service share of the Bristol Bay study will cost approximately $800,000.

Mr. YATES. Why did Mr. Breaux suggest $500,000?

Mr. BUTERBAUGH. I have no idea where that figure came from. However, the cost could vary depending on the level of involvement. The State is certainly involved to a high degree in this.

Mr. YATES. Do you happen to know what the total cost of the study will be by all the agencies? Who else is working on the study besides Fish and Wildlife?

Mr. BUTERBAUGH. Primarily, the State of Alaska. It involves 25 million acres of both State, native and federal lands in Alaska. So you see, it is a very large area to be studied. I don't have the cost figure.

Mr. YATES. Perhaps you omitted something. The Bristol Bay study is described as costing $500,000. Then it has under that, Fishery Research Operations and Management, $250,000. Would you consider that to be a part of the study?

Mr. BUTERBAUGH. Yes, it very well could be since the Bristol Bay area produces 80 percent of the world's red salmon, and a large part of the study involves impacts on fish. So I am sure that would add the two together.

Mr. YATES. That was provided in the original budget, wasn't it?

Mr. BUTERBAUGH. That is correct.

Mr. YATES. It has some importance?

Mr. BUTERBAUGH. Yes.

Mr. YATES. Would you say great importance?

Mr. BUTERBAUGH. It has great—essentially it will have to be done, at some point, in order to determine the impacts of development on Alaska. It, of course, could be deferred.

Mr. YATES. How long can it be deferred?

Mr. BUTERBAUGH. It would, to some extent, depend on the rate of development, which is unknown at this point. The study is required by December of 1983 according to the Act.

Mr. YATES. Then under wildlife resources, Mr. Breaux suggests marine bird research, $250,000. Alaska caribou study, $300,000. And non-game program, $1 million. A total of $1,550,000. Are you familiar with the subject matter of his request?

BARREN GROUND CARIBOU STUDY

Mr. MYSHAK. The caribou study deals principally with the barren ground herd located on the Arctic Wildlife Range. It is a migratory animal that moves across the Canadian border.

Mr. YATES. You are talking about the caribou?

Mr. MYSHAK. Yes. From the standpoint of impacts from potential oil and gas transportation routes, the study would have to examine that as to the impact it would have on these migrations back and forth. The concern is, I believe, the male caribou, that are frightened by the pipelines. Females not so much. In any event, that is the principal herd we are talking about. Then you have the western herd. There are also some in the southern part of the state, and also directly south along the Canadian border, the Yukon Charlie area.

MARINE BIRD RESEARCH

Mr. **Yates**. What about marine birds? Marine bird research. He thinks we ought to have $250,000 more for that. Do you think so, Dick?

Mr. **Smith**. Mr. Chairman, that is a continuation or expansion of the current studies, now roughly about the same amount. It is money to be used to catalog the colonies of marine birds along the coast of Alaska, to study the interrelationships within those colonies, and to study the wintering areas related to those species.

Mr. **Yates**. Do you have money in the budget for that?

Mr. **Smith**. There is $250,000 in the budget at the moment for that. This is an extra.

Mr. **Yates**. This would be an extra amount?

Mr. **Smith**. This would be an added amount.

NONGAME FUNDING

Mr. **Yates**. What is the nongame program for which he suggests a million dollars for?

Mr. **Lambertson**. Mr. Chairman, that is the Forsythe-Chaffee Act, passed in 1980. Basically it is a program to allow or require the states to get into comprehensive planning for the management of their wildlife resources. There are several responsibilities. One requires on the Secretary of the Interior, to develop a plan by which this program could be financed, similar to the PR and DJ programs.

I believe Mr. Breaux's proposal is to fund the study aspect of that program so that it can get off the ground.

Mr. **Yates**. Are there no funds in the budget for that?

Mr. **Lambertson**. No, there are not.

Mr. **Yates**. How important is it?

Mr. **Lambertson**. Well, I am sure the state agencies feel that is quite important. From the federal priority, it is of lower importance.

FUNDING RECOMMENDATIONS

Mr. **Yates**. He wants another $750,000 for coal operations. What would that be for?

Mr. **Spear**. Mr. Chairman, the coal operations budget was reduced by $1,100,000. An additional $750,000 in coal operations would allow us to do two things that I think Mr. Breaux is talking about: One, it would allow us to have some role in the Office of Surface Mining program with the states, both in their permitting of new mines, and in the abandoned mine lands.

In addition, it would allow additional resources to keep up with the rapidly developing federal coal leasing program.

So it would go to both parts of the program. Both the federal coal, and the state project coal programs. In essence, it is simply much the same type work as we are doing now, to provide fish and wildlife input early into the process of state and private and federal coal leasing. We are doing a considerable amount of that now in the federal leasing, very little in the state.

Mr. **Yates**. What about coal reserve and development? He suggests an additional $250,000.

Mr. SPEAR. The $250,000, I don't have any specifics on. The budget was reduced by half a million dollars. Exactly what additional $250,000 would buy, in other words, what of that original half a million dollar plan——

Mr. YATES. I guess it would buy half of it.

Mr. SPEAR. It would, but I don't know the specific projects.

Mr. YATES. Then he suggests $500,000 for permits and licenses. I guess that would just beef up your present activity, wouldn't it?

Mr. SPEAR. The permits and licenses, as I discussed earlier this morning, are reduced by a million and a half. About $500,000 increase would largely prevent any reduction in field level activity in permits and licenses. We would still take the reduction in Washington offices and regions, but that would allow most of our field level activity to remain as is, thus maintaining roughly this current level of activity which is reporting on about 45 percent of the permits and licenses.

Mr. YATES. Water resources analysis, another half a million dollars.

Mr. SPEAR. Water resources analysis is an area that we feel like we are in pretty good shape in the in-stream flow program with the remaining funds. But we had to cut back on practically the whole rest of the program to maintain in-stream flow work we have at Fort Collins. The key thing there is looking at western habitat concerns and continued problems with channelization.

Also, we are trying in that program to develop what we call best management practices for activities in the permits and licensing area. Best management practices is for things such as—one of the projects we are doing this year is for logging, forest roads, which is one of the exempted activities under 404. It is exempted as long as they use best management practices.

We are putting out a handbook to indicate to the timber industry, that there are some appropriate practices to use to protect fish and wildlife. We would continue that sort of effort in addition to habitat, channelization concerns.

COOPERATIVE RESEARCH UNITS

Mr. YATES. He wants $3 million for cooperative fish and wildlife. You already testified about that, haven't you?

Mr. HESTER. Yes.

Mr. YATES. How would $3 million help you?

Mr. HESTER. It would enable us to keep a little over half of the cooperative work we have today.

Mr. YATES. With the states?

Mr. HESTER. That is correct.

ADD-ON'S FOR STATE ASSISTANCE PROGRAMS

Mr. YATES. For endangered species, he suggests $2 million in grants to the states, a million dollars in recovery and maintenance and $500,000 in law enforcement. Then on the construction and non-anadromous fish he suggests $1,250,000 in grants to the states and $750,000 for the striped bass program. What is your feeling on that?

Mr. BUTERBAUGH. The anadromous fish grant program is at the two and a half million dollar level for fiscal year 1981. It would restore half the funding. It is zeroed out in the revised budget. We are funding projects in about 25 states. This would restore about half the work we are doing. All of the states you would have to look at on an individual basis.

The striped bass study he is referring to has been funded in the last two years in the Interior budget. In 1980 it was a million dollars. In 1981 it was $800,000. This would restore it to about the level we have in 1981. The study is to research the cause for the decline of striped bass along the East Coast, primarily Chesapeake Bay stocks, and north. Most of the money passes through the states for research. Some of it we do in-house.

Mr. YATES. Refuge revenue sharing, $5 million. Was that stricken from your budget?

Mr. MYSHAK. Yes sir.

Mr. YATES. How would that help? That would give money to the states, wouldn't it?

Mr. MYSHAK. Yes, it would.

Mr. YATES. The states want it, don't they?

Mr. MYSHAK. Yes, to the counties.

Mr. YATES. Resource protection, he has animal damage control. These are cuts of $9 million to $200,000. Wildlife operations, cut in fish hatcheries. He would cut your areas offices by $1 million and your program and budget offices by $700,000. What would happen if you cut your area offices by a million dollars? You would have smaller area offices, wouldn't you?

Mr. HESTER. We would have smaller area offices.

ANIMAL DAMAGE CONTROL PROGRAM

Mr. LOEFFLER. Mr. Chairman, is now a good time to talk about animal damage control?

Mr. YATES. Sure, this is the perfect time.

Mr. LOEFFLER. I thought maybe you were hesitating.

Mr. YATES. No, you may talk about it. To whom do you want to address a question?

Mr. LOEFFLER. Whomever.

Mr. YATES. Go ahead, Mr. Loeffler.

Mr. LOEFFLER. I note in the statement to us from the Merchant Marine and Fisheries Committee, which you have just described, that there be a reduction of $4 million in animal damage control operations. I am very concerned about that. I come from an area of the country that has experienced the predator plight to a very serious extent. What would be the impact of such a reduction in the control operations activity?

Mr. HESTER. First off, there would be an obvious reduction in the amount of manpower and effort we could apply to this. I would like Mr. Myshak to be more specific in terms of what that would translate into.

Mr. MYSHAK. Mr. Loeffler, about $7.4 million a year goes for control, in federal funds. If we took $4 million of that, approximately 56 percent; it would be a serious impact.

Mr. LOEFFLER. $4 million from the $7 million that goes to predator control?

Mr. **Myshak**. Operations. I am sorry.

Mr. **Loeffler**. So what you are doing is slashing control activities by more than half the amount.

Mr. **Myshak**. Fifty-six percent for operations would be cut, yes sir.

Mr. **Loeffler**. That, in essence, will severely reduce the available methods, suffering now from strict controls, to prevent predations. The facts in Texas, Mr. Chairman, point out that in 1967, for instance, on sheep and lamb losses, we had a predation rate or death loss by predators of 25 percent. That escalated to 52 percent in 1978. On kid and goat losses, in 1967, the death loss due to predation was 45 percent. That jumped to 72 percent in 1978.

Mr. **Yates**. Is this coyotes you are talking about?

Mr. **Loeffler**. It is a combination of coyotes as well as others, including racoons and foxes. The smaller predator is more prevalent in my area.

Mr. **Yates**. Are racoons predators?

Mr. **Loeffler**. Yes. It is a very gory death. In fact, primarily goat kids experience it. Not a killing death by the predator but a removal of the front part of the face, actually biting off the nose and ultimately they die because they cannot drink milk.

The primary predator, however, is the coyote. The coyote is the one that, in 1978 as well, caused direct losses in Texas to sheep and goat producers of some $13 million. The loss, in particular for instance, of the female animal that you would have put into your reproduction herd is especially costly. You are going to have to replace that animal, and it is going to take longer for another cycle of animals to come along to reproduce the herd.

On the cattle side of the equation in Texas, we had a direction loss of $18 million in 1978. There again, as a result primarily of the coyote.

Mr. **Yates**. I had heard the coyote wasn't a real predator. That he was a necessity. I read that in an article.

Mr. **Loeffler**. From my own personal experience, there is no question that the coyote is a major predator. I will tell you in all species, among racoons as well as coyotes, it depends on which particular individual ones gets started. Not all of them come in and attack. But when they do start, then they are addicted, so to speak.

But I am extremly concerned about this proposal coming to us from Merchant Marine and Fisheries, a reduction of more than 50 percent of the control operations activity, which is, frankly, the only way that we have on private land, as well as public land, to levy responsible predator control. I am not advocating irresponsible activities at all.

Mr. **Yates**. Do you consider that the Fish and Wildlife Service engage in responsible predatory control?

Mr. **Loeffler**. If I had my way, Mr. Chairman, I would rather not have the Federal government involved. But I think you and I know the realistic application. I think the Fish and Wildlife Service has the ability to be responsible if policy directions are changed somewhat as compared to the former Administration, which really curtailed some effective selective and responsible techniques administered by the service and private landowners as well.

Mr. **Yates**. That was probably my fault.

Mr. LOEFFLER. Mr. Chairman, you were very good.

Mr. YATES. I thought I was very bad. I mean, I was very good as far as protecting the coyotes were concerned.

Mr. LOEFFLER. In working with those of us from the Southwest and West you were very generous.

Mr. YATES. Well, no, I think rather that part went to Gunn McKay. He was more interested than I. I was trying to remember what the disagreement was. It was trapping, steel traps.

Mr. LOEFFLER. That is right. We have had a variety of flip-flops and various Administration thrusts. There was a time when the chemical toxicants were basically banned—with a heavy reliance upon trapping, steel traps, snares, shooting, and aerial gunning. On the other hand, there have been times there has been more emphasis on the M-44 cyanide gun. And prior to 1972, even strychnine.

Mr. YATES. As a ranch owner, are you allowed to shoot coyotes if you see them on the ranch? Is there any limitation as to the numbers?

Mr. LOEFFLER. As far as shooting, no.

Mr. YATES. No problem?

Mr. LOEFFLER. Not to the best of my knowledge, no. But it is very difficult to be able to go out and search and find them.

Mr. YATES. Yes.

Mr. LOEFFLER. They are very shrewd animals.

Mr. YATES. I understand their numbers have kept increasing in spite of the controls Fish and Wildlife had wanted to put on them.

Mr. LOEFFLER. That is part of our problem. That is the reason the reduction of $4 million proposed by the Merchant Marine and Fisheries Committee would be devastating to the ranching industry.

PREDATOR CONTROL METHODS

Mr. YATES. What is your method of predator control now?

Mr. HESTER. We use trapping, we use snares, we use shooting them from fixed wing aircraft. We also shoot them from helicopters. We use M-44 devices for killing them, and we shoot them from the ground.

Mr. YATES. It is tough being a coyote these days, isn't it?

Mr. HESTER. We are not very successful at it.

Mr. YATES. Do mean they are smarter than you are?

Mr. HESTER. As the Congressman said, they are very shrewd animals.

Mr. LOEFFLER. One other item, Mr. Chairman, in the dialogue which you and I are having at the moment, is that the M-44 cyanide gun has worked. But it has not worked with the type of capabilities, for instance, that the toxic collar with compound 1080 can have. What is perplexing to me, as someone who has experienced the devastating impact of predation, is that when we look at chemical toxicants I worry, as does any other American, about the effect of a poison, such as sodium cyanide or strychnine. They are much more lethal in their effects than compound 1080. 1080 can be absorbed by the body of the animal and will not, in other words, contaminate the soil where that carcass ultimately decays, whereas the other two leave poisons on the ground.

Compound 1080, as well, through the use of the toxic collar, will mean for you, and your concern about preserving wildlife—and I have that concern as well—that it is selective. When that coyote bites into a toxic collar, it means that that coyote, or that predator, is one that is addicted to the killing of livestock. For those that do not get involved in it, you are using the most selective technique available.

We have continued in the past several years to fight to preserve research on the toxic collar, which I believe is necessary. It is difficult to put a toxic collar on every goat and kid and sheep and lamb. That is impossible. But once you go into an area where you known redation is occurring you can set up your guinea pig sheep and goats with the collars. It is working very effectively.

I hate to get into this again, but you will appreciate it, Brewster County, which is basically the home of the toxic collar——

Mr. YATES. Is that the most important county in Texas?

Mr. LOEFFLER. It has been in recent cases. To answer a question to you as well about the coyote and its preponderance of activity——

Mr. YATES. Do you have any cats that are predators?

Mr. LOEFFLER. We have bobcats in Texas, and in far west Texas, mountain lions. Mountain lions, they are tough. Bobcats are somewhat common in the hill country of Texas.

Mr. YATES. I am learning all the problems of your ranching in Texas. I learned about the granite. Now I am learning about the predators. We are learning of ways to deal with both.

Mr. LOEFFLER. Remember I told you, and I meant it sincerely, that I am wed to the arts also.

TOXIC COLLAR—1080

Mr. YATES. I am sure you are. But we will find out. What do you want these people to do? Do you want them to put collars on? How does the system work? Do you give money to the states so collars may be bought?

Mr. HESTER. No. Our involvement with the toxic collar, is basically as a research tool—including research in Texas—in which we are measuring the effectiveness of this collar in controlling predators. And as has been pointed out, under certain circumstances it is pretty effective. It is effective in being very selective in killing only the predators that are killing the sheep. So far, it has been a research tool. We have conducted research primarily through our Denver Research Center but also in cooperation with Texas A&M.

Mr. YATES. How does Texas Wildlife work on your ranch, for example? You are there. What do you do? Do you permit them to come on your ranch in order to put traps and snares?

Mr. LOEFFLER. For the use of the M-44 cyanide gun they would have to come on to assist. They also assist in trapping and we have private trappers as well.

Mr. YATES. Do you write a letter to them asking for their cooperation? How do you get in touch with them, or they with you?

Mr. LOEFFLER. Basically, that is the thrust. You have to get in touch with, I suspect, the game warden.

Who is it? The district field officer?

Mr. YATES. The district field officer.

Mr. LOEFFLER. In turn, they would have to come. But where they are also helpful is in setting traps.

Mr. YATES. Can you call the district field officer or does he call you?

Mr. LOEFFLER. No, there are not enough for all of the ranchers. During lambing and kidding season primarily, but any time of the year, where they note predation, they turn to the field officers in this instance, for assistance. It is important to know as well that through the use of a federal trapper, these people are able to go from one ranch to another. When you have a predator, a coyote—a good example—that coyote is going to work an area many times larger than one ranch. For one rancher basically to do it you need assistance from someone with the proper ability and capability to go in and set traps and snares, whatever is necessary.

Mr. YATES. Why the Federal Government instead of the state government?

Mr. LOEFFLER. Mr. Chairman, in my judgment, if the farmer and rancher could use effective and selective methods without government intrusion, I would be absolutely happy, but we don't have that today.

FEDERAL RESPONSIBILITY FOR ADC

Mr. YATES. How do they have control? Do you have control over wildlife, is that it, no matter where it exists, even on private lands?

Mr. MYSHAK. Mr. Chairman, under the Animal Damage Act of 1931, part of our charge is to take care of these types of predation, whether it be on wildlife or domestic livestock. We work with the states, with counties, and with individual cooperators. They request services of us, and we contract with them. There is a memorandum of agreement signed. In the case of a private landowner, we have to make a special agreement, release, if you will, to go on his land.

Mr. YATES. Why was that Act passed? Was it because the states and private people couldn't handle the problem themselves?

Mr. LOEFFLER. No, it was because the Federal Government thought they were better ranchers than the ranchers themselves. The ranchers always have been the best conservationists, Mr. Chairman.

Mr. YATES. I wondered why the Federal Government would come into the picture, unless the wild animals were threatened by extinction.

Mr. MYSHAK. Mr. Chairman, at that time, most of the grazing of cattle and sheep was on federal lands.

Mr. YATES. I see.

Mr. MYSHAK. Therefore, the reason for the Act.

Mr. LOEFFLER. I think we must also keep in mind precisely that problem. The federal land situation is something distinct from what we have been talking about because in Texas, except for that county near and dear to you and I, it is basically private land.

Mr. YATES. Just the one county?

Mr. LOEFFLER. In my district, only the Big Bend National Park is federal land.

Mr. YATES. All that is in Brewster County?

Mr. LOEFFLER. All in Brewster County.

Mr. YATES. All right, where are we?

Did you want to ask some more questions?

Mr. LOEFFLER. I just wanted to say I think it is very important that as a subcommittee, we retain the amounts requested by the Administration in both cases, as far as research and control operations. I think we would be making an extremely serious mistake unless we could reach the accommodation you suggested in the end, and that is to allow on private lands, the ranchers to exercise their ability in levying responsible predator control.

Mr. YATES. Apparently we can't do that because of the 1931 law.

Mr. LOEFFLER. That is correct, at the moment. We are locked in.

Mr. YATES. They are responsible. I think if you and I reached an agreement they would probably at least put you in the hoosegow. But I don't know about me.

Mr. MYSHAK. Mr. Chairman, if a private rancher on private land wanted to, for instance, control coyotes, he would have to abide by state game laws.

Mr. YATES. Are there any in Texas?

Mr. MYSHAK. Oh, yes, there are.

Mr. YATES. Are there? I knew there were oil conservation laws but I didn't know there were predator laws. It has been a very helpful discussion. I don't know where I wind up on predator control. I just haven't experienced the same things you have. I am serious. Apparently if you try to raise herds of goats and sheep, you have a different attitude than those of us who live in high rises in the city.

Mr. LOEFFLER. Mr. Chairman, I really don't think we do. If I might for just a second——

Mr. YATES. Sure you might.

Mr. LOEFFLER. Clearly recognizing that I have spent my entire life involved in different environment, I know of no rancher who violates the needs for a proper ecological balance between wildlife and their livestock, because their livelihood depends on both. Deer hunting is a major staple to a rancher's income, annually. So if he, for instance, has an over-population of deer as a result hypothetically in other words, if he would seek to destroy all predators, and his deer population goes far in excess of what it really should be, the size of the deer dwindle, and the deer themselves end up dying off ultimately. Nature takes its course.

Mr. YATES. Do you worry about predators too, or do the deer take care of themselves?

Mr. LOEFFLER. That is not a good example. They basicially take care of themselves now as a result of the screw worm eradication program.

Mr. YATES. I was thinking of predators. I didn't know the screw worm was classified as a predator.

Mr. LOEFFLER. It is even worse than the predator. But that has caused the deer population to jump very high. That was a major ecological indicator.

Mr. YATES. What do you have on your ranch besides granite and sheep and deer?

Mr. LOEFFLER. Goats, cattle, and predators.

Mr. YATES. Do the predators attack your cattle?

Mr. LOEFFLER. It does occur, but we have not experienced that to the best of my knowledge, except a Golden Eagle, I think maybe attacked a calf, but did not kill it. Claw marks were on the back.

Mr. YATES. Do you have Golden Eagles down there?

Mr. LOEFFLER. We have a few, but as you get into west Texas, there are many more, because you move into that area which has many, many rocky bluffs, even more than we have on the ranch with the granite.

Mr. YATES. That is very fascinating. I must say, it is much more interesting than the witness' testimony.

Mr. LOEFFLER. Mr. Chairman, I think it is important though, from our different backgrounds, to make the point that, I will acknowledge there is a shyster in every crowd, including the legal profession of which I am a part, and I think perhaps you are a part.

Mr. YATES. Used to be.

Mr. LOEFFLER. Well, the same, until I came to Washington. By and large, the farmer and rancher must maintain a proper balance, or they cannot survive. They live off the soil.

Mr. YATES. There is a song in Oklahoma to that effect, do you remember?

Mr. LOEFFLER. I haven't——

Mr. YATES. "Oh, the farmer and the rancher must be friends." Do you remember that?

Mr. LOEFFLER. I do, yes sir.

Mr. YATES. Yes. That is what we are talking about now. Not bad for not being accompanied.

Mr. LOEFFLER. The arts are going up.

Mr. YATES. I don't know that we are interesting Mr. Hester.

Mr. LOEFFLER. It has been an interesting exchange.

Mr. YATES. Would you like a minute?

Mr. LOEFFLER. I would like to ask another question. I am sorry. I will take a minute.

Mr. YATES. Sure.

Mr. LOEFFLER. One other question. What basically do you perceive to be the status of research on the toxic collar, and what must be done to conclude that?

Mr. Chairman, before he answers, I would say that, we cannot use the collar on a ranch in Texas, because it would have to be a selected ranch to be used more or less for research. It is like so many studies you and I have witnessed from our experience in Washington. A study after study, after study with no results.

Mr. YATES. All right.

STATUS OF TOXIC COLLAR RESEARCH

Mr. HESTER. My answer is basically, the toxic collar has been used in a research sense. That is, it has been used in a study, not in an operational general damage control method. Such things are controlled in several ways including registration with EPA, and in our case, by departmental policies. So from that standpoint, today it is in the research stage. It is not used in operation, however.

Mr. MYSHAK. The contract we have with Texas A&M is for three years. Hopefully, that will complete the study.

Mr. **Hester.** Representatives of the livestock producing industry believe that toxic collar priority in the area of predation, predator control, should be at the very top. It is again—and I use the term, well chosen—selective, effective and responsible. And probably the most selective that we have today.

Mr. **Yates.** Why haven't they got it? Why is it only on a pilot study basis?

Mr. **Loeffler.** Primarily because Secretary Andrus was not fond with respect to chemical toxicants. Also, we have yet to get the licensing permit from EPA such that we can move forward with it.

Mr. **Myshak.** That is right.

USE OF STEEL TRAPS

Mr. **Yates.** May I ask you a question about trapping? The steel trap seems to be the bane of most conservation societies. Do you use them?

Mr. **Hester.** Yes sir, we do.

Mr. **Yates.** Is their complaint well grounded?

Mr. **Hester.** Some of the complaints are justified, some of the complaints are exaggerated.

Mr. **Yates.** I am not sure I really know where we are with that.

Mr. **Hester.** I am saying, there are some people who feel the steel trap is more damaging than I think it actually is, or causes more pain than it actually does. But those are examples.

Mr. **Yates.** They give you the worst pictures in the world to justify their statements.

Mr. **Hester.** I understand. That is the reason for the other half of the statement. There are some examples where steel traps have caused damage and suffering to animals. So to some extent, it is true and to some extent, exaggerated.

Mr. **Yates.** Mr. Loeffler.

Mr. **Loeffler.** The pictures that I don't like to see either that have an animal in a steel trap are no more, and probably even less, offensive than the damage that has been levied by predators. For instance, take that goat kid. Having grown up on a ranch, there is nothing I have seen that is more nauseous than a young goat kid, freshly born, after the nose has been eaten off. That kid is alive and cannot survive since it no longer has the top of its mouth.

Speaking of steel traps, one reason that they continue to be used is for the simple reason that they can catch that predator. Snares miss more than steel traps, and also, the cages, which we use. One places bait inside a little metal cage—a very shrewd predator wouldn't go in that cage. The trap is more effective.

Yet, they do make a very valid point, those extremely concerned about an unsightly event. No question about it. Again, when you look at the toxic collar, we are taking care of a lot of problems on both sides of the equation for a group of people whose bottom line is the same, to preserve wildlife as well as livestock.

Mr. **Yates.** When will your study be completed?

Mr. **Hester.** Our current studies, some are with Texas A&M, I believe, as Mr. Myshak indicated will be completed in three years.

Mr. **Yates.** Three more?

Mr. **Myshak**. One year has almost gone by. So a little better than two years.

Mr. **Loeffler**. Is there any way we can expedite that time?

Mr. **Myshak**. This is research put together with Texas A&M.

Mr. **Yates**. Probably Gramm-Latta will cut off the funding and it will be over, wouldn't it?

Mr. **Loeffler**. I support Gramm-Latta and I am sure it wouldn't cut that off.

ARCTIC COASTAL PLAIN STUDY

Mr. **Yates**. Have you concluded?

Let's go back to the Wildlife Refuge Coastal Plain Resources Assessment. What impact will the increase requested for the area have?

Mr. **Pulliam**. The Alaska Lands Act calls for a study to be completed by July 1982, and provides for eventual oil and gas leasing. Prior to that time, there must be an assessment of effects that leases will have on wildlife populations. So before the area can be opened for oil and gas leasing, we must complete these surveys and census of wildlife populations. Again, that is a cooperative study with the United States Geological Survey.

ALASKA WALRUS PROTECTION

Mr. **Yates**. Let's talk about funds for Alaska walrus protection?

Mr. **Myshak**. Ninety-nine thousand dollars has been eliminated from the budget.

Mr. **Yates**. Does that mean the walrus will not be protected?

Mr. **Myshak**. No, not entirely. However, it is going to limit the amount of aerial time we spend in observing them and policing any illegal take of them.

Mr. **Yates**. If there is no——

Mr. **Myshak**. It is highly labor intensive and a transportation dependent operation. It just means a lot less of it.

Mr. **Yates**. How valuable is the survey, your review or whatever you call it?

Mr. **Myshak**. Our surveillance?

Mr. **Yates**. Yes.

Mr. **Myshak**. Well, very important. However, we think the recent walrus bust in Alaska has changed the mind of people about illegal traffic. The arrest and seizure of 10,000 pounds of raw ivory——

Mr. **Yates**. Ten thousand pounds?

Mr. **Myshak**. Yes sir.

Mr. **Yates**. How many walruses were killed to make 10,000 pounds?

Mr. **Myshak**. Quite a few.

Mr. **Yates**. That is incredible.

Mr. **Myshak**. It was in February that we made the bust. Five different states were involved—New Jersey, California, Washington, Alaska and Massachusetts.

Mr. **Yates**. Did the call come from Alaska originally?

Mr. **Myshak**. Yes sir.

Mr. **Yates**. What happened to our surveillance up there?

Mr. MYSHAK. We had an 11 months' undercover operation on that one and waited until all the pieces fell together. We even included a motorcyle gang, which the State of Alaska had been trying to get for some time.

Mr. YATES. Well, have you had surveillance of the walrus population until this year?

Do you have it in the current budget, surveillance?

Mr. MYSHAK. Oh, yes. My point is, sir, we are going to be doing less.

Mr. YATES. I know that. But, if they are able to get away with 10,000 pounds of ivory while you have surveillance, how much are they going to get away with if you don't have surveillance?

Mr. MYSHAK. Well, we hope that—our hope is that the lessons learned from these citations that were issued will dispell a lot of this.

Mr. YATES. Are you going to have surveillance at all? What happens with the elimination of this funding?

Mr. MYSHAK. It is in the base, $145,000.

Mr. YATES. Is that enough?

Mr. MYSHAK. No sir.

Mr. YATES. How much have we eliminated?

Mr. MYSHAK. Ninety-nine thousand dollars for polar bear, walrus, and other mammals.

Mr. YATES. Are they also killing polar bear?

Mr. MYSHAK. There is some illegal traffic in polar bears, yes, sir.

Mr. YATES. Where is the illegal traffic found? You have it in the walrus and polar bear. What other animals?

Mr. MYSHAK. Migratory birds, deer, big horn sheep.

Mr. YATES. Big horn sheep, too?

Mr. MYSHAK. Yes sir.

Mr. SOKOLOSKI. Fish, as well.

Mr. YATES. Mammal and Non-migratory Bird Wildlife Assistance Program is not authorized for this year. How much is budgeted in 1982 for this unauthorized program?

Mr. MYSHAK. How much is authorized altogether?

Mr. YATES. Yes.

Mr. MYSHAK. Seven hundred and——

Mr. YATES. I should supplement what Mr. Loeffler said. There is $500,000 in the Department of Agriculture bill for predator control isn't there?

Mr. HESTER. That is correct.

Mr. YATES. You and Agriculture are working on this. What is the status of that study that you are undertaking?

Mr. HESTER. They have the primary responsibility. They have $500,000 which Congress provided them to do the study. We have made our information available and stand ready to consult with them.

Mr. YATES. The coyote seems to be the predator everybody talks about. Are there other predators you tried to eliminate?

Mr. MYSHAK. Yes, sir.

Mr. YATES. Which other ones?

Mr. MYSHAK. Mountain lions. Bobcats and raccoons were mentioned earlier.

Mr. YATES. I never thought the raccoon was a predator.

Mr. HESTER. We try to control the problem. We do not try to eliminate the animals. We do not drive them to extinction. Part of the problem is they become overly abundant at places and cause problems. We try to reduce the number and control the problem, not eliminate them.

Mr. YATES. If they are threatened with elimination do you put them on the endangered species list?

Mr. HESTER. That is possible.

NATIONAL AQUARIUM

Mr. YATES. What do you want to do about the National Aquarium?

Mr. HESTER. Our proposal is to close it.

Mr. YATES. Is that because you don't have anyone for it?

Mr. HESTER. That is because of our budget reductions.

Mr. YATES. How do you put these in the record?

[Showing drawings from schoolchildren.]

Mr. YATES. How hardhearted are you? There we are, birds and fish. Mr. Reed of the Smithsonian wants to build an aquarium at the zoo. "Save the National Aquarium." How many visitors do you get a year?

Mr. BUTERBAUGH. Approximately 300,000 visitors annually.

Mr. YATES. That is pretty good considering the fact few people know there is an aquarium.

Mr. BUTERBAUGH. Very good.

Mr. YATES. I don't think I have ever seen it.

Mr. BUTERBAUGH. Considering it is in the basement of the Commerce Building.

Mr. YATES. I better go over. Is it worth saving? All right, we will have an inspection trip. Can you charge any fees or accept donations?

Mr. HESTER. We could charge fees but they would have to be submitted to the Treasury. They cannot be used directly in financing the facility.

Mr. YATES. How much money do you have to operate it?

Mr. BUTERBAUGH. There is no money in the revised 1982 budget. The present operating budget for the aquarium is approximately $286,000.

Mr. YATES. If you close it, what will you do with the fish?

Mr. BUTERBAUGH. There are several options. One, the new aquarium in Baltimore has indicated interest in some of the species. We also have 20 aquariums located in national fish hatcheries throughout the country. Some of the fish could be spread around the various facilities. There are numerous other large aquariums in the country that I am sure would be interested in taking these fish. None of them would be wasted.

Mr. YATES. Does every big city in the country have an aquarium?

Mr. BUTERBAUGH. Not every big city, but there are a large number of very modern, well done aquaria. Chicago has a fine one. Baltimore's will be a fine one. Boston has an excellent, fairly new aquarium. San Francisco, Vancouver, British Columbia have excellent aquaria. All of those are far larger and more modern and better than this aquarium we are talking about here in Washington, D.C.

EXTENSION/ENVIRONMENTAL EDUCATION PROJECTS

Mr. **YATES.** What about your extension education projects, do you have any money for those?

Mr. **HESTER.** Yes, we do and we will propose to continue in 1982 with these projects. There will be a reduction, but we will retain funding for this purpose.

Mr. **YATES.** What kind of projects are these?

Mr. **HESTER.** These are generally of an educational nature. Outdoor classroom packages, for example, people use when they come to visit our national wildlife refuges. They could be used in other areas. I can give you a list of our education projects for 1981.

Mr. **YATES.** Put that in the record. And include their cost, if you want to do that.

[The information follows:]

ENVIRONMENTAL EDUCATION ACTIVITIES
FY 1981

The Service's environmental education program consists of two basic functions. One is the operation of facilities and activities displaying ecological concepts which is available to the 29,200,000 visitors expected to visit fish hatchery and refuge field stations and research centers in FY 1981. The other is the development and design of educational materials and activities by the Office of Extension Education that best enhance the objectives of the Service. This includes field testing, publication and incorporating the finished product into the existing fish hatchery, refuge, or research center program. Projects planned for FY 1981 are:

1. Survey of refuge personnel to determine scope of understanding and application of the concept of using education and interpretation as a resource management tool. $3,500

2. Refinement of the I&R planning process to ensure that it is compatible with program standards and field station master planning process. $35,000

3. Field testing 2 completed outdoor classroom packages and continuing development of 18 others. $94,000

4. Providing assistance to the Georgia Nature Conservancy in the development and conduct of teacher workshops in the Southeast. $5,000

5. Continuing development of 4-H fish and wildlife resource education program. $5,000

6. Production and distribution of a bibliography of Environmental Education Resources to Service personnel, cooperators and native Americans. $1,500

7. Development of an information data base for use by Service personnel in the formulation of educational materials. $7,000

8. Providing assistance to Region 5 in the redesign of the Blackwater Visitors Center to demonstrate ecosystem concept integration into story lines. (continued $18,000 in FY 81)

9. Initiating planning and development of a model public education program. $2,500

10. Development of an urban wildlife public education program. $10,000

11. The development of an information matrix to be used in planning that can be predictive as to the response of species to certain public use activities. $14,000

12. Continue to develop comprehensive strategies and procedures for the development and implementation of an integrated, comprehensive Service-wide education program. Including objectives

consistent with those of the Administration and means for achieving them. $20,000

13. The publication of 8 additional education packages for field testing. $50,000

14. A contract for the development of the final 10 national base education packages. $94,000

15. Development of supplemental education material for field stations. $40,500

The environmental program conducted on fish hatchery and refuge field stations for the visiting public consist primarily of four activites. They are: (1) interpretation; (2) outdoor classrooms; (3) wildlife/wildland recreation; and (4) education assistance. The Service will spend $2,032,000 for these activities in FY 1981.

INTERPRETATION AND RECREATION REDUCTIONS

Mr. YATES. Supervisory offices are being cut back in the amount of $253,000, aren't they, and refuge field stations, and the national sign shop. What effect will these reductions have on the Service's I&R program?

Mr. HESTER. We believe the signs, for example, can be obtained commercially. So we do not think it is essential to maintain our own sign shop. The other items identified there I think are generally recognized to be reduced without severe impact on them.

Mr. YATES. Supervisory offices? Cut back $253,000?

Mr. MYSHAK. That is across the board, Washington Office, regional offices, and area offices.

Mr. YATES. What about the Archeological and Historical Survey? How important is that program for you?

Mr. PULLIAM. Our involvement to date, Mr. Chairman, has been primarily survey of specific sites for which we have construction plans. If we are going to build a dike or pave a road, any type of construction of that nature, we have to complete an archeological survey before we can construct the project to determine whether or not there will be any effects on archeological resources. So the program is primarily a site-specific type program, related to construction projects.

Mr. YATES. That is being cut back $207,000?

Mr. PULLIAM. Two hundred seven thousand dollars? There will be some reduction in travel to professional meetings and things like that. Basically, we have a chief archeologist in Washington and one person in each regional office that coordinates the entire archeological, cultural and historical programs for the service. We probably have six, seven people involved in the program.

Mr. YATES. What happens to that fee account that you set up. Are you going to stop charging fees?

Mr. PULLIAM. The fee account was set up two or three years ago. I think at one time it was $250,000. Then in 1981, the program was cut in half, and the special account was abolished and moved into the interpretation and recreation program.

The money is collected from fees for various kinds of activities. They are user fees, such as hunting blind fees, things of that nature. The fees collected have been appropriated to the field stations to improve recreational facilities. The $125,000 cut would have to be absorbed in our normal resources managment funds from the I&R program. About 20 field stations would be affected.

LEETOWN NATIONAL FISHERY CENTER

Mr. YATES. What is the status of the insulation project at Leetown?

Mr. BUTERBAUGH. The funding appropriated this year, 1981, is for the roof insulation. The contract is in the process of being let now. The actual construction will be completed, or ongoing this summer. We are doing the study now to determine what the requirements will be for insulation of the wall, how that would be done, whether it is inside or outside the building.

NORTHWEST FISHERIES

Mr. YATES. What is the status of the Boldt Management Program in the Northwest?

Mr. BUTERBAUGH. The Congress passed the Salmon and Steelhead Enhancement Act last year, which is to be funded for carrying out the results of the Boldt decision.

As I am sure you are aware, there is no money appropriated for that. But the Department of Commerce and Department of the Interior both have responsibilities in that Act to develop plans. We are working cooperatively with Commerce on this. They are responsible for developing a management plan and setting up an advisory group. That must be fleshed out before Interior can take care of its share, which is the enhancement lan. So we are waiting for Commerce to get the first part of their plan on the road, then we will be coming on a little later with the plan.

Both agencies at this time have no funding to do more than develop the plans, since it is all being absorbed. That should be done at fairly small cost.

ALASKA FISHERY RESOURCES

Mr. YATES. Is fishery management in Alaska being given priority over enhancing the fisheries resources in the lower 48?

Mr. BUTERBAUGH. At this time it has certainly been given a high priority. Because of the large, vast areas of refuges and fishery resources on the refuges in Alaska, it is important that the Service put more emphasis on this side of it. So we are attempting to increase our fisheries assistance activities in Alaska.

This will be largely through the increase in the budget, in the fisheries program that goes to refuges. There is nine hundred thirty-four thousand dollars for that in the fisheries budget.

ILLEGAL FISHING

Mr. YATES. What is the extent of illegal commercial fishing?

Mr. BUTERBAUGH. Are you talking about nationwide?

Mr. YATES. Pacific and Atlantic, and the Great Lakes?

Mr. BUTERBAUGH. The areas we are primarily emphasizing in terms of controlling illegal commercial fishing have to do with Atlantic salmon and Pacific salmon and in the Great Lakes. We have a very small undercover effort trying to identify commercial fishermen or the buyers of these illegal fish. It is the most economical way for us to do this, rather than putting agents out actually to enforce the state law on this, it is to try to get the buyers, undercover activities.

We are concentrating on those areas of the highest priority which are the Great Lakes resources and Atlantic resources.

ENDANGERED SPECIES

Mr. YATES. Secretary Watt says that as far as endangered species are concerned emphasis should be on recovery and not on listing. Is that a good idea? I suppose if the Secretary says it, it is a good idea, isn't it? How will that work?

Mr. **Hester**. Mr. Chairman, it is a matter of balancing. How much of the effort do you put on listing versus how much do you put on other responsibilities? When you list an animal or plant as an endangered species that carries with it obligations to protect it, to form a recovery plan, for example, to reduce its tenuous status and bring it back into greater abundance. And from the standpoint that simply says a careful balance between the various responsibilities.

Mr. **Yates**. What will the results be as a result of emphasizing recovery rather than listing?

Mr. **Hester**. Mr. Lambertson.

Mr. **Lambertson**. Well, the first thing, I hope, is that we get more recovery plans. At the present time we only have about 40 recovery plans for all the species listed. If we have more recovery plans, private agencies, state agencies and maybe other federal agencies can help with recovery efforts.

Mr. **Yates**. What is the impact of the reduction in the program likely to be on violations? Will you be able to keep pace with the numbers of violations that occur?

Mr. **Lambertson**. In the endangered species program, sir?

Mr. **Yates**. Yes.

Mr. **Lambertson**. We hope to put more emphasis on undercover operations. And frankly, we are going to have to rely upon the states and citizens to report violations when they occur. We aren't going to have as many officers involved. For that reason, we are going to have to be more responsive. It is kind of like the difference between having a policeman on the beat, and a detective to respond once a problem is identified.

KODIAK WILDLIFE REFUGE

Mr. **Yates**. You are going to build a headquarters complex at the Kodiak National Wildlife Refuge. Why should you do that before you finish the refuge management plan?

Mr. **Pulliam**. It is extremely difficult for us to find housing for our employees in Kodiak. Building space of any kind is at a premium. It is a rather large refuge. We know we have to have facilities for our employees out there. So this will be to construct two residences. Even if you could find housing the costs are prohibitive. Kodiak is not new, it has been in the system for some time.

In addition to that, we are providing for transient quarters for part-time employees, people who work during the summer months. It is just extremely difficult to find housing and storage facilities for employees.

KILAUEA VISITOR CENTER

Mr. **Yates**. You want $64,000 for the Kilauea Point wildlife site in Hawaii. How much have you spent to date on the rehabilitation of the Kilauea Visitors Center?

Mr. **Pulliam**. We will provide that for the record.

[The information follows:]

Kilauea Point—Hawaii

Approximately $3,000 was spent on minor repairs to the interior of the facilities. A partition was removed, walls repaired and painted. Also, a protective fence was installed on the perimeter of the property. An additional $50,000 was spent on exhibits for display in the visitor contact station.

Mr. YATES. Where does the money for that rehabilitation come from?

Mr. PULLIAM. The construction program.

Mr. YATES. What is a loafing and gritting site?

Mr. PULLIAM. Waterfowl need grit to process food in their gizzards. Grit is at a premium in that part of the country.

Mr. YATES. That is "grit", and not "grits"?

Mr. PULLIAM. That is grit. There is a big difference. Geese in particular, come to the sites.

Mr. YATES. What is a loafing site?

Mr. PULLIAM. If you have an expansive marsh which this is, there are very few places the geese and other waterfowl can rest where they aren't on water. So they sit up on the land and loaf, like you and I would loaf.

NATIONAL ELK REFUGE CONSTRUCTION

Mr. YATES. Let's talk about the National Elk Refuge in Jackson. What is the payback on the solar heating system. Is there one?

Mr. PULLIAM. In most cases where we are building new facilities, we are trying to incorporate energy efficient, energy savings devices.

Mr. YATES. Is it too early to tell how effective they are?

Mr. PULLIAM. I suspect it is.

ANADROMOUS FISH GRANTS

Mr. YATES. We will ask you that question next year.

What are the consequences of terminating the anadromous fish grants; are there any?

Mr. BUTERBAUGH. In 1982, a total of 43 ongoing grants in 25 states will be terminated. I could go into detail on these if you wish. Eight are construction projects; seven, operations and maintenance projects; 28 are investigational type projects; and three Indian projects involved in the 32 ongoing grants. This is a 50-50 matching program, or if there are two or more states involved, it is 66⅔ and 33⅓. In some cases the, states will continue their portion of the program.

Mr. YATES. How much does NOAA have for the striped bass study?

Mr. BUTERBAUGH. In their new budget, they have none. Both agencies lost that funding and anadromous fish funding.

CONSTRUCTION

Mr. YATES. Who has responsibility for designing a facility such as a fish hatchery?

Mr. BUTERBAUGH. I do.

Mr. YATES. Are hatchery managers consulted during the hatchery design phase?

Mr. BUTERBAUGH. Yes, sir.

Mr. YATES. What were the reasons for building four new houses at the fish hatchery at Warm Spring, Oregon?

Mr. BUTERBAUGH. At the time those houses were built, it was our intent to use them. Since that time, we have run into problems such as the rental rates going up so high that they are not as desirable to people as they were at the time they were built. Also, we have had problems with those houses in the construction.

The new people coming in now are more interested in living in town to buy their own home and develop equity, than rent. So it is just a change in the times. We have changed our whole attitude toward building residences on hatcheries and are trying to take this into account. In some areas, we do have houses that are not being used.

Mr. YATES. Who is supposed to be living in the houses?

Mr. BUTERBAUGH. Depending on the isolation of the hatchery, it could be the whole crew. Generally, they are located in areas where they can live in a town. The maintenance man is certainly a key individual if the hatchery is large enough, hatchery manager and assistant manager. Generally, just one professional and a maintenance type are there. The other houses would depend on the type of station and program that we have.

YOUTH PROGRAMS

Mr. YATES. Were the YCC and YACC helpful to your rehabilitation and maintenance.

Mr. HESTER. Yes, they were.

Mr. YATES. What are you going to do without them next year, if Congress approves the Administration's budget deletion for those funds?

Mr. HESTER. Some of the things they did we will have to do with our other staff, if they are important enough to be done.

Mr. YATES. Do you enter into any contracts to acquire land before funds are available?

Mr. HESTER. No, none that would be considered binding contracts. There have been cases where we have taken options that held property available until we could determine whether funds would be appropriated.

STATUS OF STEEL SHOT

Mr. YATES. What is the status of your steel shot program?

Mr. HESTER. Basically, we are working closely with the states on this program. I would ask Mr. Myshak to give you more detail.

Mr. YATES. Have you been continuing your studies on the effect of lead shot as against steel shot?

Mr. MYSHAK. Yes, sir.

Mr. YATES. Do you still stand by your preference for steel shot?

Mr. MYSHAK. We are working in areas where the so-called hot spots exist in the incidences of lead poisoning. Currently, we are working with the International Association of Fish and Wildlife Agencies. They have appointed a committee including two people from Fish and Wildlife Service, two from the Agency itself, three or four manufacturers, two conservation groups and four flyway biologists. This group will assemble and try to develop a steel shot program that may be completed and submitted to the Department for consideration by September of this year.

Mr. **Yates.** How accurate or valid is the contention of many hunters that steel shot ruins their barrel?

Mr. **Myshak.** It ruins their barrel?

Mr. **Yates.** Yes, of their gun.

Mr. **Myshak.** Well, if somebody is shooting a very expensive gun that wasn't intended to be shooting steel, I would imagine it could be damaging to them. It wouldn't hurt the weapons of the ordinary hunter at all.

Mr. **Yates.** Thank you.

That is all I have. Mr. Long, Mr. AuCoin, and Mr. Ginn have some questions for the record and I have some as well that I would ask you to answer.

Mr. **Hester.** Yes, sir. Thank you.

[The questions and answers follow:]

Questions Submitted by the Congressman Clarence D. Long

Patuxent Wildlife Research Center

Question: How will the Patuxent Research Center be affected by the proposed funding cuts? Please specify which activities would be terminated or reduced.

Answer; The proposed funding cuts will reduce the Patuxent Wildlife Research Center budget by $597,000. Reductions in Environment Contaminants Evaluation of $377,000 include: $45,000 by elimination of proposed studies on the impact of acid rain on waterfowl; $255,000 by elimination of other proposed ECE studies; and $77,000 by curtailment of existing studies. A reduction of $70,000 in Migratory Bird Program funds will result in less research on management of inland and non-game bird communities and reduced avian information storage and retrieval systems. Funding for the Endangered Species Program research at Patuxent will be reduced by $150,000. This reduction will affect some facility maintenance and some work on Everglade Kite and Bald Eagle research and propagation.

ENDANGERED SPECIES

Question: How does funding for Endangered Species under the proposed budget compare with that for Animal Damage Control or predator control?

Answer: In the President's amended budget request for FY 1982, a total of $16,893,000 is proposed for the Endangered Species Program, while the request for the Animal Damage Control Program amounts to $17,827,000.

Question: How do you reconcile the funding cuts for Section 6 grants to States with the President's plan to return such program authorities to the States?

Answer: Section 6 grant-in-aid funds to the States were originally designed to promote and support active State involvement in endangered species activities. To a large extent, the funding levels sustained over the past eight years have accomplished this purpose. Now, however, it is this Administration's policy to reduce Federal categorical grants and, at the same time, increase State responsibility in determining their own funding priorities. As a result, the Section 6 funds are proposed for reduction with the firm belief that the prior success of this program in promoting endangered species preservation and conservation will be continued under State auspices.

Question: What specific programs in the Office of Endangered Species will be cut?

Answer: Of the five subprograms constituting the Endangered Species Program, only Consultation and Exemption is not proposed for reduction. A reduction of $1,500,000 is proposed for Listing, consisting of decreased numbers of status surveys of candidate species, outside contracts for preparation of listing packages, and designations of Critical Habitat. Under Protection, a $1,000,000 decrease would include curtailed numbers of domestic investigations, strategy plans implemented, and permits processed. The reduction in Maintenance and Recovery, amounting to $1,500,000, would consist of lower priority research projects and recovery actions both on and off Service lands, regional recovery coordinators, and those new recovery actions proposed in President Carter's January budget request. The $4,000,000 State grant-in-aid program would be completely eliminated.

STEEL SHOT

Question: What is the status of the Winchester film on steel-shot that the Service was planning on using for public information?

Answer: A steel-shot film entitled "Field Testing Steel Shot" is being produced by the FWS. The film is not yet complete.

ENDANGERED SPECIES

Question: When do you intend to publish a new listing of Endangered Species?

Answer: A revised and updated listing of Endangered and Threatened Species is currently scheduled for publication in the Federal Register early this summer, probably June or July.

Question: If Rep. John Breaux's budget plan for endangered species is approved, how will the Service's proposed reorganization plans for the Office of Endangered Species be affected?

Answer: Within the Endangered Species Program, emphasis is being placed on decentralizing and streamlining the present listing process. Reorganization efforts currently scheduled for this activity are not linked directly to the budget itself, nor would they be affected by

Rep. Breaux's plan. However, approval of the Administration's proposed budget request will accelerate their implementation, and further ensure that the presently-planned decentralization and operational thrusts are attained in an effective and timely manner. Various personnel in the Listing area will be transferred from Washington to field offices, where they will be physically closer to both the candidate species and the affected public, and thus able to more effectively and efficiently ascertain the essential data needed for listing a species, determining any specific habitat requirements, and performing an initial economic analysis of such a finding.

Question: I understand that the Service plans to deemphasize listing of endangered species "in order to enhance recovery programs." How do you propose to enhance recovery?

Answer: The ultimate goal of the Endangered Species Program is to remove species from the Endangered or Threatened list. Accomplishing this aim requires the implementation of various steps of a complex, thorough recovery plan tailored to the specifics of each listed species. Rather than continuing to expand the present number of listed species, the Service is now planning to concentrate its operational and funding efforts on developing new recovery plans and implementing those already developed. To this end, recovery actions for listed species have been winnowed down to those of the highest priority and with the best chances for successfully promoting reproduction, survival, and/or population expansion.

Questions Submitted by Congressman Les AuCoin

Cooperative Research Units

Question: The Cooperative Fishery Units receive less than $5 million. How valuable do you think this type of technical assistance is to industries, such as fisheries?

Answer: The FY 1981 budget for all Cooperative Units is $4.6 million, which includes Wildlife, Fishery, and combined Fishery and Wildlife Units. Technical leadership has been provided for sport fishing, hunting, and recreational industries nationwide, as well as fur harvest, timber management, and aquaculture.

For example, research such as that designed to gather information that will increase the number of fish eggs available for propagation and improve diets for growth of fry in hatcheries has been valuable to public and private hatchery managers. Other information produced by the Unit Program has been used to manage water at existing hydropower reservoirs in order to have minimal effect on fish populations.

Question: Isn't it true that for a small amount of investment there is substantial return in the way of an increase in technological expertise, which in turn increases productivity?

Answer: The investment in each Cooperative Unit provides a return through access to the technological expertise, equipment, and laboratories of cooperating universities and State agencies, and savings in conducting research through graduate students. Technological expertise is enhanced through the training and graduation of students and also through provision of specific research information which can be utilized by private industry and government to increase the productivity of natural resources.

Question: As you know, this program is a cooperative effort. For every federal dollar invested, state governments and universities invest two dollars. If this program were terminated, do you think that these functions would be assumed by state governments? Do you think these functions would be assumed by the private sector?

Answer: If the Cooperative Unit Program were terminated some functions could be assumed by State governments which will have continuing regulatory or management responsibilities for the resource in question. A smaller number of functions such as those associated with commercial hatchery production could be assumed by the private sector.

Question: Don't you think that the federal government has a responsibility to help address some of these technical fishery and wildlife management problems, which are of a regional and even national nature? Isn't this especially true in the Pacific Northwest, where federal dam construction and water use policies in the region helped increase the salmon management problems the Cooperative Unit at Oregon State University is addressing?

Answer: The Federal government does have a responsibility to help address some of the technical fishery and wildlife problems in the Northwest, and intends to continue to fulfill that responsibility through other Fish and Wildlife Service programs.

Certainly Federal dam construction and water use policies in the Northwest have played a role in creating salmon management problems. The western Fishery Cooperative Research Units are carrying on a research effort designed to understand the cause of the decline of these fishes. Hopefully, the budgetary climate will allow the Fish and Wildlife Service to continue these efforts at our fishery research laboratories.

Questions Submitted by Congressman Bo Ginn

Additional Refuge Positions

Question: Under the Bicentennial Land Heritage Program, an additional ceiling of 500 positions was allocated for the refuges. Were those positions allocated to the refuges themselves, and if not, why?

Answer: When the Bicentennial Land Heritage Program was originally planned in September 1976, it included a planned $250 million rehabilitation and construction program and 500 personnel ceilings for National Wildlife Refuges. The construction program was to be spread over five years. (1977-1981) The allocation of ceilings actually received from OMB was 460. It was recognized that many "support services" would be necessary to sustain the engineering, land acquisition, and administative functions to carry out a program of this size.

A decision was made at the outset to put 244 ceilings on refuge stations and to "loan" 216 ceilings to various FWS offices with the stipulation that they would be returned at the end of the program.

Some progress has been made in returning ceilings to refuge field stations which now have 263 of the original 460. The Service has a plan and timetable for returning these ceilings. It varies from division to division depending upon the need for the particular service. As construction phases down, the need for engineering service diminishes. At various points in time, the need for other services also decreases. Those persons supervising contracts will be needed until the contract is fulfilled. It is the Service's goal to return most of those ceilings to refuge field stations.

AREA OFFICES

Question: Since the Fish and Wildlife Service Resource Management budget is being reduced about 16 percent, does the Service plan to reduce administrative overhead by closing area offices?

Answer: As part of the programmatic reductions generated by the March budget amendments, the Service plans to reduce the staffing of the area office by 18 full-time permanent positions. Preliminary estimates indicate that this action will produce cost savings of more than $500,000 (less one-time severance pay or employee relocation costs that may be incurred).

Independently of this action, the Service is conducting an analysis of the continuing roles of the area and regional offices. Depending on the option finally selected, further organizational adjustments may lead to an expansion or contraction of the responsibilities of the area offices, or possibly, their elimination.

Question: How much money can be saved by closing area offices?

Answer: The area offices' current operating budgets total about $7 million. Beyond the $.5 million in programmatic savings mentioned in the answer to the question above, the Service is unable to make an accurate estimate of potential savings pending completion of the current organizational analysis.

Millen National Fish Hatchery

Question: Construction funds were appropriated for the Millen Hatchery in FY 1978 and FY 1980 for the construction of additional ponds. It is my understanding the majority of this money was utilized to improve the water supply. Has the construction money been obligated?

Answer: Of the $448,000 appropriated in FY 1978 and $435,000 appropriated in 1980, $448,000 was used for construction of a new pump house and spring water supply (including weir dam); $45,000 was used for extending the pond drainage line below the spring and extending the pump intake into the spring; $190,000 was used to construct two series of 8' x 80' raceways; and $200,000 was used for constructing two 3/4 acre ponds. Approximately 95% of the funds have been obligated.

Question: If so, when will construction be completed?

Answer: All construction has been completed with the exception of the raceways and ponds. This work is scheduled for completion in July 1981.

Question: What additional money is needed to complete the development at Millen?

Answer: Existing long-range development plans for this hatchery include additional development costing approximately $3.9 million. A copy of the development plan is provided. The Service is not seeking these funds due to current fiscal conditions. If fiscal conditions change, the further development of Millen NFH will have to be weighed in the broader context of Service-wide construction needs.

Question: What is the minimum amount that can be efficiently utilized for the next phase of the construction program?

Answer: Approximately $1,037,000 could be efficiently utilized to construct eight (0.7 acre) production ponds with supply lines and drain lines with outside catch basins. This would increase annual production capability by 400,000 fish (5,000 pounds).

5 Yr. Avg. Annual Prod.: October 1980
4,250,000 Warm-water 13,000 Lbs.

Full Cap. w/Exist. Facilities:
4,250,000 Warm-water 15,000 Lbs.

MILLEN, GEORGIA
(Jenkins County)

Authorized by 63 Stat. 615 - August 18, 1949
(Established 1959)

Development Program for the Millen National Fish Hatchery

Fiscal Year 1978 (Appropriated)

Construct new pump house and extend present pond drain line below spring	$385,000
Construct weir dam downstream in spring run	63,000
Total Funds Appropriated FY 1978	$448,000

Fiscal Year 1980 (Appropriated)

Extend pump intake into spring	$ 45,000
Construct two series of 2 x 8 x 80 raceways	190,000
Construct two 3/4-acre ponds	200,000
Total Funds Appropriated FY 1980	$435,000
Total Funds Appropriated to Date	$883,000

Funds Needed for the Program

Phase I

Fish Production Facilities	
(1) Construct eight (0.7 acre each) production ponds with supply and drain lines with outside catch basins.	$1,037,000
Buildings	
(2) Rehab office building to provide additional space	23,000
(3) Rehab quarters - install thermopane windows, waterproof basement at Qtrs. 1, add extension vinyl siding and replace floor covering	75,000 (E)
Total for Phase I	$1,135,000

Completion of Phase I would provide for additional:

O&M $20,000
Outputs . . . . .5,000 Lbs., 400,000 Nos.
Personnel . . . .one permanent position

Phase II

Fish Production Facilities	
(1) Construct remaining eight (0.7 acre each) production ponds with supply and drain lines	$1,037,000
Total for Phase II	$1,037,000

Completion of Phase II would provide for additional:

O&M $20,000
Outputs . . . . . 5,000 Lbs., 400,000 Nos.
Personnel . . . . None

Phase III

Fish Production Facilities

(1) Extend water supply lines to shallow end of 15 ponds	$71,000
(2) Extend electricity 3/4 mile to ponds #15-22	15,000
(8) Construct fish pump ramps and steps to existing ponds	59,000

Buildings

(3) Construct hatchery building	151,000
(4) Construct a reading and archives room (12' x 12') aquarium building	27,000
(5) Rehab aquarium building equipment. Install central air and heating unit, and water chiller	41,000
(6) Reconstruct holding house	59,000
(9) Construct new equipment storage building	253,000
(10) Construct new residence with carport	97,000

Other Physical Facilities

(7) Rehab asphalt pavement roads and parking lots	38,000
Total for Phase III	$811,000

Completion of Phase III would provide for additional:

O&M	None
Outputs	None
Personnel	None

Phase IV

Fish Production Facilities

(1) Seal pond bottoms - 25 ponds (23 acres)	$824,000
(2) Raise kettle walls 18" (25 ponds)	23,000

Other Physical Facilities

(3) Rehab septic tank field lines	8,000
(4) Resurface pond roads, 1.4 miles w/4" of gravel	68,000
Total for Phase IV	$923,000

Completion of Phase IV would provide for:

O&M	None
Outputs	None
Personnel	None

Total Estimated Cost to Complete	$3,906,000
Total Estimated Cost of the Program	$4,789,000

- ENR Est. Cost Index as of Sept. 1980, escalated to April 1982 @12% building and 12% general construction, plus 2% Administrative overhead.

Construction	3333.6
Building Cost	1976.7

Harris Neck Refuge

Question: Money was appropriated in 1980 to construct public recreational facilities and a boat dock for use by the Service. When will this construction be completed?

Answer: The boat dock and boat fueling facility for use by the Service will be completed this summer or fall. However, the funds appropriated were insufficient to complete the rest of the facilities associated with the boat dock, a boat storage facility, security fence, and boat railway. The public recreation facilities have been completed.

Question: Is there a development plan for this refuge? If so, would you please submit it for the record, including current cost estimates.

Answer: There is a development plan for this refuge, which we are submitting for the record.

DEVELOPMENT PLAN

HARRIS NECK
NATIONAL WILDLIFE REFUGE
MCINTOSH COUNTY, GEORGIA

HARRIS NECK NWR (Revised - 9/80)

PROJECT PLANNING SHEET

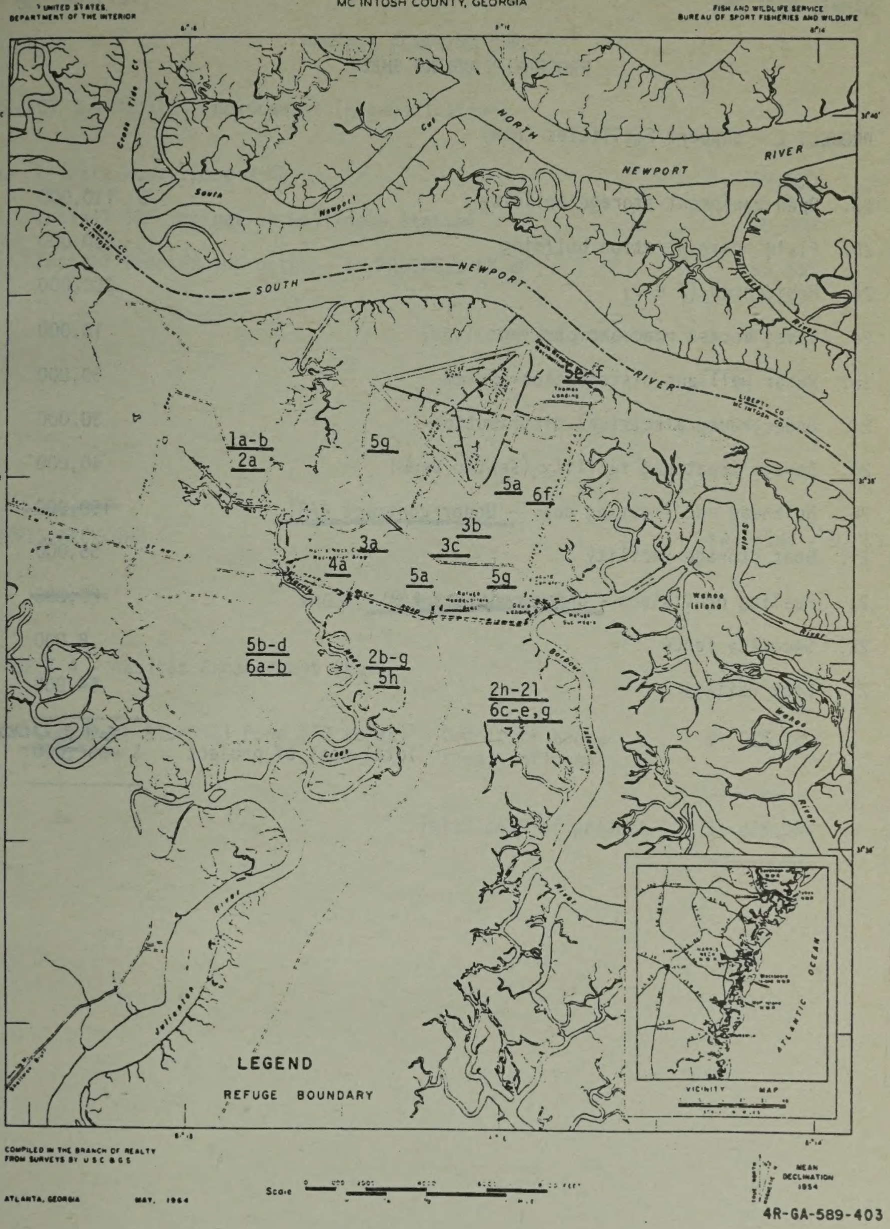
PROJECT 1 - Support Facilities (rehabilitation)

1a.	Shop rehabilitation (includes septic tank, water system, loading ramp, vehicle lift)	$ 150,000
1b.	Security fence	20,000
	Total cost of project	$ 170,000

Price estimates of all projects in this development plan do not include engineering or overhead costs.

HARRIS NECK NATIONAL WILDLIFE REFUGE

MC INTOSH COUNTY, GEORGIA



HARRIS NECK NWR (Revised - 5/81)

PROGRAM PLANNING SHEET

PROJECT 2 - Support Facilities (new)

2a.	Open equipment storage building	$ 110,000
2b.	Field administration building	150,000
2c.	Residences (2 ea.)	200,000
2d.	Paved access road and parking	15,000
2e.	Water well and distribution system	30,000
2f.	Underground electrical distribution	30,000
2g.	Sewage treatment facility (septic tank)	40,000
2h.	Bulkhead and floating dock - Under contract 4/81	~~150,000~~
2i.	Boat storage facility	55,000
2j.	Fueling provisions - Under contract 4/81	~~20,000~~
2k.	Security fence	8,000
2l.	Boat railway	54,000
	Total cost of project	$ ~~862,000~~ 692,000

HARRIS NECK NWR (Revised - 9/80)

PROJECT PLANNING SHEET

PROJECT 3 - Habitat Enhancement (rehabilitation)

3a. Elevate woody pond dike	$ 62,000
3b. Install 12" irrigation well/pump station	70,000
3c. Install fencing and gates - IN PROGRESS FY 80	60,000
Total cost of project	$ 192,000

HARRIS NECK NWR. (Revised - 9/80)

PROJECT PLANNING SHEET

PROJECT 4 - Habitat Enhancement (new)

4a. Construct Bluebill Pond (70 acres) - Dam to be above tidal influence	$ 225,000
Total cost of project	$ 225,000

HARRIS NECK NWR (Revised - 9/80)

PROJECT PLANNING SHEET

PROJECT 5 - Public Use Facilities (rehabilitation)

5a.	Repave main access road 3 miles, SNR	$ 155,000
5b.	Rehabilitate parking area 25 cars, HNC - Under Contract-4/81	~~35,000~~
5c.	Boat launching ramp, HNC - Under Contract - 4/81	~~53,000~~
5d.	Floating boat dock, HNC	20,000
5e.	Fishing pier, 150' x 6', cement pilings, SNR	215,000
5f.	Rehabilitate parking area 25 cars, SNR	35,000
5g.	Rehabilitate secondary roads	70,000
5h.	Rehabilitate visitor signing	17,000
	Total cost of project	512,000 $ ~~600,000~~

SNR = South Newport River

HNC - Harris Neck Creek

HARRIS NECK NWR (Revised - 9/80)

PROJECT PLANNING SHEET

PROJECT 6 - Public Use Facilities (new)

6a.	Two 75' fishing boardwalks, HNC - Under Contract - 4/81		$ ~~40,000~~
6b.	Public restrooms (septic tank), HNC		50,000
6c.	Fishing boardwalk (75')	- DELETED 1979 AT - REQUEST OF - MANAGER & WITH - CONCURRENCE OF - A. O. & R. O.	~~12,000~~
6d.	Construct parking area (10 cars)		~~4,000~~
6e.	Portable toilets (2)		~~8,000~~
6f.	Construct 1/2 mile wildlife trail, SNR		43,000
6g.	Boat launching ramp and parking area, Gould Landing		130,000
		Total cost of project	223,000 $ ~~263,000~~

APPROVAL PAGE

DEVELOPMENT PLAN
HARRIS NECK
NATIONAL WILDLIFE REFUGE
MCINTOSH COUNTY, GEORGIA

Walter O. Stieglitz
Regional Director

2/12/81
Date

Assistant Regional Director
Refuges and Wildlife Resources

5/11/81
Date

Donald J. Hankla
Area Manager

12/18/80
Date

John P. Davis
Refuge Manager

12-11-80
Date

(Revised - 9/80)

Okefenokee National Refuge

Question: Is there a development plan for the Okefenokee Refuge? If so, would you please submit it for the record?

Answer: There is a development plan for Okefenokee Refuge, which we are submitting for the record.

OKEFENOKEE NWR (Revised - 1/81)

PROJECT PLANNING SHEET

PROJECT 1 - Support Facilities (rehabilitation) - PROJECTS BELOW COMPLETED ON DATE SHOWN.

1a.	Construct shop.office building (3500 s.f.)(c.c.) - FY 78	$ ~~160,000~~
1b.	Construct closed warehouse storage (2000 s.f.)(c.c.) - FY 79	~~60,000~~
1c.	Construct open equipment storage (3600 s.f.)(c.c.) - FY 78	~~90,000~~
1d.	Construct oil/paint house (500 s.f.)(c.c.) - FY 78	~~15,000~~
1e.	Construct pump house (400 s.f.)(c.c.)	12,000
1f.	Construct seasonal quarters (4-800 s.f. ea.)(c.c.)	145,000
1g.	Install fueling facilities (c.c.) - FY 79	~~15,000~~
1h.	Construct sewage treatment facility (c.c.) - FY 78	~~75,000~~
1i.	Install underground utilities (c.c.) - FY 78	~~50,000~~
1j.	Landscaping/irrigation system (c.c.)	40,000
1k.	Security system (c.c.) - FY 79	~~20,000~~
1l.	Site development (clearing, grading, roadways, etc.)(c.c.)-FY 79	~~40,000~~
1m.	Construct boathouse/storage (1200 s.f.)(Jones Island)	104,000
1n.	Rehab automatic gate (SA)	10,000
1o.	Renovate radio communications system (TR)	60,000
	Total cost of remaining projects	$ 371,000

Price estimates of all projects in this development plan do not include engineering or overhead costs.

OKEFENOKEE NWR (Revised - 9/80)

PROJECT PLANNING SHEET

PROJECT 2 - Support Facilities (new)

2a.	Construct boathouse (900 s.f.)(s.a.)	$ 90,000
2b.	Construct seasonal quarters (2-800 s.f. ea.)(s.a.)	136,000
2c.	Construct residences (2-1700 s.f. ea.)(s.a.) - COMPLETED FY 79	~~155,000~~
2d.	Construct closed equipment storage (4000 s.f.)(s.a.)	250,000
2e.	Construct oil/paint house (400 s.f.)(s.a.)	50,000
2f.	Install sewage treatment facility (s.a.)	50,000
2g.	Install fueling facility (s.a.)	30,000
2h.	Install underground utilities (s.a.)	70,000
2i.	Install water well/treatment (s.a.)	50,000
2j.	Landscaping/irrigation (s.a.)	50,000
2k.	Security system (s.a.)	20,000
2l.	Site development (s.a.)	75,000
2m.	Construct closed equipment storage (2400 s.f.)(k.f.)	140,000
2n.	Construct boathouse (1500 s.f.)(k.f.) - COMPLETED FY 78	~~60,000~~
2o.	Install fueling facilities (k.f.)	30,000
2p.	Install underground utilities (k.f.)	50,000
2q.	Install water well/treatment (k.f.)	50,000
2r.	Landscaping (k.f.)	20,000
2s.	Security system (k.f.)	25,000
2t.	Site development (k.f.)	50,000
2u.	Install automatic gate (k.f.) - COMPLETED 12/78 (Force Account)	~~10,000~~
2v.	Construct tram storage shelter (1200 s.f.)(c.c.)	95,000
	Total cost of project	$1,331,000

OKEFENOKEE NWR (Revised - 1/81)

PROGRAM PLANNING SHEET

PROJECT 3 - Habitat Enhancement (rehabilitation)

3a.	Plant pine lands (1000 acres)(TR)	$ 200,000
3b.	Precommercial thin pine lands (2000 acres)(TR)- (Pine)	100,000
3c.	Timber stand improvement (150 acres)(TR)	20,000
3d.	Rehab roads (53 mi.), bridges (4), and fences (6 mi.)(TR)	45,000
3e.	Replace Suwannee Sill #2 (SA)	740,000
3f.	Replace Suwannee Sill #1 (SA) - Done FY 78	~~620,000~~
	Total cost of project	$ 1,105,000

OKEFENOKEE NWR (Revised - 9/80)

PROJECT PLANNING SHEET

PROJECT 4 - Habitat Enhancement (new)

4a.	Install self-monitoring rain gauge/water level recorders (12)(TR) - DONE FY 79	$ ~~39,000~~
	Total cost of project	$ ~~39,000~~

OKEFENOKEE NWR (Revised - 9/80)

PROJECT PLANNING SHEET

PROJECT 5 - Public Use Facilities (rehabilitation)

5a.	Redesign and renovate parking area (SCRA) - COMPLETED WITH FY 78 FUNDS	$ ~~155,000~~
5b.	Clean out Suwannee Canal (4½ mi.)(SCRA)	765,000
5c.	Install water treatment system (SCRA) - COMPLETED 8/78)	~~25,000~~
5d.	Rehab swamp boardwalk/observation tower (SCRA)	75,000
5e.	Renovate boat basin (SCRA) - COMPLETED 2/79	~~25,000~~
5f.	Renovate existing visitor facilities (SCRA) - COMPLETED 8/78	~~20,000~~
5g.	Renovate existing visitor facilities (TR)	100,000
5h.	Replace visitor signing (as necessary)(TR)	35,000
5i.	Improve boat ramp/parking (K.L.)	85,000
	Total cost of project	$1,060,000

OKEFENOKEE NWR (Revised - 1/81)

PROJECT PLANNING SHEET

PROJECT 6 - Public Use Facilities (new)

6a.	Construct auditorium (100 seat-2200 s.f.)(SCRA) - DONE FY 78	$ ~~132,000~~
6b.	Construct boardwalk spurs/photoblind (SCRA) - DONE FY 78	~~50,000~~
6c.	Construct trail/boardwalk (songbird)(SCRA) - COMPLETED 8/78 BY YCC WITH FORCE ACCOUNT FUNDS	~~25,000~~
6d.	Construct boat ramp (SA)	60,000
6e.	Construct shoreline fishing boardwalk (2000 L.F.)(SA)-PARTIALLY COMPLETED 2/81	~~70,000~~ 40,000
6f.	Pave entrance road (3/4 mi.)(S.A.)	85,000
6g.	Construct parking area (SA)	100,000
6h.	Construct visitor contact point (w/restrooms)(SA)	110,000
6i.	Construct wildlife trail/boardwalk/observation point (SA)	215,000
6j.	Construct sewage treatment facility (K. L.)	120,000
6k.	Construct concession building/docks (K. L.)	175,000
6l.	Install underground utilities (K. L.)	50,000
6m.	Landscaping (K. L.)	15,000
6n.	Security system (K. L.)	20,000
6o.	Construct visitor contact point (K. L.)	35,000
6p.	Site development (K. L.)	50,000
6q.	Little island walking trail (1.7 miles)(SCRA)	20,000
6r.	Pine island hiking trail (7 miles)(SA)	4,000
6s.	Crews homestead walking trail (½ mile) (SCRA)	3,000
6t.	Cane pole fishing trail extension (includes foot bridge)(SCRA)	4,000
	Total cost of project	$1,106,000

APPROVAL PAGE

DEVELOPMENT PLAN
OKEFENOKEE
NATIONAL WILDLIFE REFUGE
WAYCROSS, GEORGIA

Walter O. Stieglitz — 2/23/81
Acting Regional Director — Date

2/20/81
Assistant Regional Director — Date

Donald J. Hankla — 1/23/81
Area Manager — Date

John C. Eadie — Dec. 8, 1980
Refuge Manager — Date

(Revised - 9/80)

Question: What additional construction funds are needed at present to continue the development plan?

Answer: The plan shows what additional construction funds are needed to carry out the development plan.

Question: Is O&M funding at the Okefenokee Refuge adequate to protect the refuge and serve the public?

Answer: The O&M funding requested for Okefenokee is adequate to protect the refuge and serve the public. The Administration is requesting a $15,000 increase in O&M funding for the refuge in fiscal year 1982.

Question: What are the major maintenance projects at Okefenokee which are not funded in the 1982 budget?

Answer: Major rehabilitation projects at Okefenokee which are not funded in the 1982 budget are (in priority order):

Rehabilitate roads (53 mi), bridges (4) and fences (6 mi) ($45,000)
Replace Suwannee Sill #2 ($740,000)
Construction of boathouse/storage facility on Jones Island ($104,000)

Housing Policy

Question: What is your current policy with respect to housing on refuges and hatcheries?

Answer: As a general rule, personnel are expected to provide for their own accommodations in nearby communities when located within a reasonable commuting distance of their place of employment. A reasonable commuting distance is defined as one that does not exceed 30 miles or one which requires less than 45 minutes travel by motor vehicle. If an installation falls outside the "reasonable distance" or if an inadequate supply of local housing is documented, government-furnished quarters may be provided for employees, other than local hires, whose presence is necessary for the conduct of the Service's mission. Other considerations, such as privacy, size, and lack of all weather construction, also determine if quarters will be provided and at what rate. In addition, the Service may require occupancy of refuge or hatchery housing if necessary services cannot feasibly be rendered or government property cannot be protected through means other than the presence of employee quarters on the installation.

If there are government-furnished quarters available at the refuge or hatchery, and it is determined to be in the best interests of the government to require the employee to reside in those quarters, an agreement with the employee will be made concerning rates to be charged. The rates for quarters, utilities, and other services are based on the prevailing local rates charged for comparable private housing and services. Other charges and any possible compensations will be made based on local conditions. For example, deductions from the rates may be made if the distances from the quarters to the nearest shopping district of an established community is over 30 miles or 45 minutes travel time.

Additional Committee Questions

Environmental Contaminant Research

Question: On page 18, describe the process used by the Service in determining what projects will be carried out in the research program and what ranking method is used to identify program priorities.

Answer: The Program Manager has established a basic research strategy to aid in determining what projects will be carried out in the research program. This strategy directs environmental contaminant research towards providing a balanced effort in dealing with resources having known contaminant problems, those suspected of being impacted by contaminants, those of potential impact through emerging and future developments, and biological/ecosystem indicators of contaminant stress. Important resource problems of high Federal responsibility and concern provide a central focus in the research strategy. Research needs are identified by management, operations, and research personnel in the Washington Office, regional offices, field offices and research laboratories. As research projects are completed new starts are initiated based on the identified research needs. Selection of the new starts are made by the Program Manager upon advice and input from resource contaminant specialists within Environmental Contaminant Evaluation Program.

Question: How many times have funds been reallocated from one research facility to another research facility when the Service became aware that higher priority program projects needed to be funded than would be carried out at the losing facility?

Answer: Reallocation of funds between research laboratories occurs frequently. The reallocations are made by the Service Directorate as research projects are completed; when Service priorities are reevaluated or when consolidation of research efforts occur. For example, in 1973 all animal damage control research was consolidated at the Denver Wildlife Research Center and wildlife research on contaminants consolidated at the Patuxent Wildlife Research Center. In 1980, funds were reallocated away from the National Wildlife Health Laboratory with the completion of several wildlife disease contaminant evaluation research projects. During that same year a reevaluation of program funding occurred at the Great Lakes Fishery Laboratory. A portion of Fishery Research funds was withdrawn and replaced by Environmental Contaminant Evaluation Research funds.

IMPROVEMENTS IN RESOLVING DELAYS

Question: The House Report for the 1981 bill expressed concern about lengthy delays where Fish and Wildlife Service and Corps of Engineers are involved in reaching agreement on wetland preservation. What can be provided to the Committee to show that improvements have been made in resolving this problem?

Answer: On March 24, 1980, in accordance with Section 404(q) of the Clean Water Act, the Secretaries of Army and Interior signed a Memorandum of Agreement for the processing of various Corps of Engineer's permit applications. The purpose of the agreement is to insure timely consideration of the views of other Federal agencies. The agreement helps protect the public interests by eliminating needless delays in the processing of permit applications. Above all, the agreement is intended to insure that a decision is made on a permit application within 90 days of the Corps issuance of a public notice. In the agreement the Fish and Wildlife Service has very restrictive time limits to respond to the Corps during the public interest review. During the past year, since the agreement was entered into, it has been our experience that the new procedures have accelerated the processing of all permit applications over which the Service has expressed concerns.

Additionally, the Service has encouraged use of a "joint permit processing" procedure whereby the various involved reviewing Federal and State agencies meet with the Corps regularly to discuss permit applications. The joint processing expedites the permit review process by mutual discussion of concerns and sharing of project data.

In December of 1979 the Fish and Wildlife Service released a publication titled Classification of Wetlands and Deepwater Habitats of the United States. Today, some District Engineers' offices are using the publication and the Service's Wetland Inventory Maps to assist in the delineation of wetlands for which the Corps has regulatory responsibilities. Early identification of wetland issues has increased resolution of such issues prior to the public interest review process of an individual's permit application.

By far, the most effective means the Service has found to expedite the permit process is providing technical assistance to potential permit applications well in advance of the actual date of submitting an application to the Corps. Through such consultation and various Fish and Wildlife Service publications, potential applicants can be made aware of possible fish and wildlife resource problems, and may receive assistance in identifying acceptable alternatives which will fulfill both the applicants and the Service's objectives.

The Fish and Wildlife Service is committed to work toward every improvement which will assist the public in receiving a decision on a permit application in the shortest time possible.

VOLCANIC ASH PROBLEMS

Question: At page 43, a technical assistance manual on volcanic ash problems is discussed. Please provide a copy of that manual to the Subcommittee.

Answer: A copy of the manual has been provided to the Subcommittee.

NATIONAL WETLAND INVENTORY

Question: The justifications for the wetland inventory project begin at page 45. This amendment reduces this program activity by $700,000. How will that be allocated?

Answer: The $700,000 reduction pertains to the Systems and Inventory Project of which the National Wetland Inventory is a part. None of the reduction has been applied to the National Wetland Inventory in recognition of the Inventory's priority. The reduction has been allocated to the Systems and Inventory Project's Information Management capability. This reflects a restructuring in information management (dissemination of information and impact assessment methods developed by the Service) which is less costly and more effective.

Question: Will other Federal agency and State support be reduced?

Answer: The $700,000 reduction in the Systems and Inventory Project will not result in a reduction in other Federal agency and State support.

Question: What percentage of the inventory is complete through fiscal year 1980?

Answer: Seventeen percent of the conterminous United States (520,000 square miles) has been mapped through FY 80. This represents 281 1:100,000 scale maps.

Question: How much more will be accomplished in 1981?

Answer: Four percent (120,000 square miles) more will be mapped through FY 81. This will bring the total area mapped to 640,000 square miles (21 percent of the conterminous United States) representing 346 1:100,000 scale maps.

Question: How much will be accomplished in fiscal year 1982 with the appropriation request?

Answer: Five percent (135,000 square miles) more will be mapped in FY 82. This will bring the total area mapped to 775,000 square miles (26 percent of the conterminous United States) representing 419 1:100,000 scale maps.

Question: When will the inventory be completed?

Answer: Inflation and increased costs, as well as increased demands for greater detail by users, have precluded the preparation of wetland maps for the entire country in the initial inventory as was previously planned. Instead, maps will be completed for priority areas, and a report on the status and trends of the Nation's wetlands will be prepared using statistical sampling procedures. The priority areas are the coastal zone, including that of the Great Lakes, the Prairie Potholes, and the floodplains of major rivers. Under current funding the mapping of the priority areas will be completed in FY 88. The current mapping rate represents approximately 1,000 1:24,000 scale maps covering 60,000 square miles of the United States each year. The report on the status and trends of the Nation's wetlands will be completed in FY 82.

HABITAT ANALYSIS PROJECT

Question: At page 47, the Habitat Analysis program is described. When did that program start?

Answer: The Habitat Analysis Project has been part of the Biological Services Program's System and Inventory Subprogram since 1976. The Project was established to work on methods to store, retrieve, and analyze textual, numerical and mapped information for natural resources classification and inventory. With the signing, by five Federal agencies, of the Interagency Agreement Related to Classifications and Inventories of National Resources in 1978, the Project has been given special attention to developing broad spectrum technologies of interagency use. The Project is encouraging the development and use of standardized habitat analysis methods for inventories and resource assessments.

Question: When will it be completed?

Answer: There is no set completion date since the Project's purpose is to improve the ability of the Service and others to handle habitat data. As man's knowledge of fish and wildlife habitats increases, the number of uses of this information also increases. Thus, our abilities to handle and analyze habitat information cannot remain static but must change with new knowledge and needs. Technologies developed by the Project will be continuously refined so that they remain up-to-date and of maximum usefulness and efficiency.

Question: What percentage of the work has been completed through fiscal year 1980?

Answer: As of fiscal year 1980, 40% of the Project's initial research and development work has been done. For example, in the information handling part of the Project computerized systems to handle textual, numerical, and mapped data have been developed. These systems have been transferred to Fish and Wildlife Service regional offices. Field tests are being used to evaluate these products to ensure that users of the technologies are not required to be computer experts; modifications and enhancements currently are being made to simplify applications. In the analysis part of the Project, methodologies have been developed for site-specific work and use and evaluation of these methods initiated. Development work, however, has just started an analysis methods for National level use with products scheduled for evaluation in 1985.

Question: How much do you expect to be completed by the end of 1981; by the end of 1982?

Answer: The basic research and development aspects of the Project would be 50 and 60%, completed, respectively. As research nears completion in fiscal years 1984 and 1985 resources will be directed into training people in the use of the methods developed, and in providing technical assistance when questions arise as to use of a given computer capability or analysis method. In addition, some research and development will be needed on a continuing basis to keep products current and hence of maximum usefulness.

RECREATION AREAS

Question: At page 130, justification indicates that the wildlife system maintains 302 improved recreation areas and highly visited refuge areas. Provide some examples of recreation areas that are available, where they are located and the type of recreation provided in wilderness areas.

Answer: Listed are examples of various recreation areas and their locations:

Visitor Centers--functioning as orientation, focal points for dissemination of wildlife oriented information and apprising visitors of activity opportunities as well as safety suggestions for their visit; examples are Seney NWR, MI, Chincoteague NWR, VA, Wichita Mountains NWR, OK, Blackwater NWR, MD.

Interpretive Trails--paths and boardwalks to permit visitor access and experiences with typical refuge habitat for viewing wildlife; examples are Okefenokee NWR, GA, Great Swamp NWR, NJ, Sherburne NWR, MN, Aransas NWR, TX, Santa Ana NWR, TX.

Observation Points--buildings, platforms, towers, and blinds structured and located to maximize visitor viewing and photographic opportunities of wildlife; examples are at Santa Ana NWR, TX, Okefenokee NWR, GA, Aransas NWR, TX, Wheeler NWR, AL, and Mingo NWR, MO.

Auto Tour Routes--self guided, marked routes (usually loop-fashion) to permit wildlife observation via vehicle access; examples are Seney NWR, MI, Okefenokee NWR, GA, Chincoteaque NWR, VA.

Hunting, trapping, and/or Fishing Access--roads and trails providing access to popular and traditional "hot-spots"; examples are Mingo NWR, MO, Kenai NWR, AK, Wichita Mountains NWR, OK, Horicon NWR, WI, and Sabine NWR, LA.

Campgrounds--designates and/or structurally designed areas for overnight use by tent or RV campers; examples are Crab Orchard NWR, IL, Wichita Mountains WR, OK.

Picnicking--designated and/or structurally designed areas for preparation and/or consumption of food during a refuge visit; examples are Wichita Mountains WR, OK, Okefenokee NWR, GA, Crab Orchard NWR, IL; Seney NWR, MI.

WILDERNESS AREA RECREATION

Public recreation opportunity in National Wildlife Refuge wilderness areas is best characterized as simple access and wildlife observation viewing opportunities. At least two refuges offer somewhat more elaborate visitor activity pursuit:

1. Wichita Mountains, OK--access is provided to backpackers on a well controlled permit system to minimize impact on wilderness

area to expose first-time wilderness users to a safe and enjoyable experience.

2. Okefenokee NWR, GA--concession provided canoes and camping equipment permit visitor access to the Okefenokee Swamp not feasible through any other mode of travel; most of this refuge is in wilderness status.

WILDERNESS AREAS

Question: What is the status of wilderness review on wildlife refuges?

Answer: There are presently 65 refuges having designated wilderness areas comprising 19.3 million acres. Another 26 refuges have wilderness designations pending which total 3.4 million acres. The Alaska National Interest Land Conservation Act (P.L. 96-487) requires the Service to study for possible wilderness designation of those refuge lands in Alaska not established as wilderness by the Act--approximately 57.8 million additional acres. There are no wilderness proposals pending in OMB. The Service is working with BLM to complete a withdrawal application which would consolidate a 2nd Oregon Islands Wilderness Area Addition and complete withdrawal of 113 areas of previously established but not withdrawn Oregon Island Wilderness (1st addition). In addition the Great River Environmental Action Team (GREAT) will complete its study of the Upper Mississippi this year and the wilderness recommendation deferred by the Service on approximately 200,000 acres will have to be formulated.

EXOTIC FISH RESEARCH

Question: On page 138, an Atlas of North American Freshwater Fishes is discussed. Why would a laboratory associated with exotic fish research take the lead in publishing this document?

Answer: The primary purpose of our research on exotic fish is to determine the impact of introduced exotic species on the native fish resources. In order to do this, it is necessary to have up-to-date information on the current status or condition of fish populations. This atlas is a compilation of the most recent information on the range, population status, and condition of current fish species in North America, including previously introduced exotic species. It, in essence, provides a baseline from which to measure the impacts of exotic introductions in the future.

Question: Please provide the Subcommittee with a copy.

Answer: A copy of the atlas has been provided to the subcommittee.

HATCHERY OPERATIONS AND MAINTENANCE

Question: An increase of $2,152,000 is requested for additional operations and maintenance of hatchery facilities. What criteria were used in assigning funds by the hatchery?

Answer: The January request was for an increase of $2,152,000. In the amended request, this was reduced to $1,602,000. The primary intent of this request was to meet inflationary operational cost increases at existing hatcheries that had not received any operational budget increases for a number of years. Hatcheries related to anadromous fish and Great Lakes activities had received several increases in recent years and, in comparison to other units of the system, were in relatively good shape in terms of operational funding. However, a large number of other hatcheries have received no increases other than pay-act and had reached the point where it was necessary to use cyclical maintenance funding to meet basic operational costs.

In distributing the O&M increase to various hatcheries, the first need addressed ($697,000) was critical, unavoidable deficits for fish food, utilities, and other things required to meet immediate fish production needs. After hatcheries with deficits in these critical areas were covered, increases were distributed to cover less immediately critical needs ($581,000) such as replacement of wornout equipment, custodial maintenance, and equipment maintenance. Finally, increases were assigned to specific hatcheries to accomplish cyclical maintenance projects ($324,000) that had been delayed in order to cover operational deficits in the past.

Question: Why are no additional funds provided for the Tupelo hatchery?

Answer: In FY 1981, Congress added $300,000 to the Service's budget for operational funding shortages at Southeast fish hatcheries. In the Service's FY 1981 budget request, Tupelo NFH was slated for operational funding of $107,000. However, an additional $15,000 from the $300,000 add-on was allocated to Tupelo in FY 1981, providing total operational funding of $123,000 as shown in the Service's amended FY 1982 budget request. Because of this additional funding in FY 1981, Tupelo NFH was sufficiently funded relative to many other hatcheries. Consequently, none of the requested O&M increase in FY 1982 was allocated to Tupelo.

Refuge Construction

Question: $755,000 is requested for the Cibola National Wildlife Refuge in Arizona. The justification indicates that a lack of on-site buildings has severely handicapped the management of this refuge. How and in what way has the management of the refuge been handicapped?

Answer: Cibola National Wildlife Refuge lies 25 miles south of Blythe, California where the refuge office is located. Because of continuing theft and vandalism problems at the one storage building on the refuge, vehicles and other equipment must be kept in Blythe. In the past year over $14,000 worth of equipment was stolen. In May of last year an air compressor, arc welder, tool cabinet, and assorted electric power tools and jacks were stolen. Last July two batteries were stolen out of the Service's tank truck. Vandalism to fences, gates, and signs cost over $4,000 annually. In addition most visitors either are unable to locate the headquarters for information and assistance or do not consider the 50 mile round trip worthwhile. Also illegal taking of wildlife is a problem. These inefficiencies in management dictate the high priority ranking for on-site headquarters facilities.

Question: How many construction projects requested in fiscal year 1982 are a repeat of projects deleted in fiscal year 1981?

Answer: None of the construction projects requested in the revised budget are a repeat of projects denied by Congress in fiscal year 1981.

Question: Why would those projects for which funds were requested in 1981 and denied not be further along in the planning process than they appear to be?

Answer: No fiscal year 1982 projects exist for which funds were requested in 1981 and then denied.

Question: $650,000 is requsted for an office/administration building at the Elk Refuge, Jackson, Wyoming. This includes a solar heating system. What is the payback on the solar heating system?

Answer: Design plans specify an active solar heating system for the building. This energy-efficient heating system will provide for approximately 80%-90% of total heating needs. The payback on the solar heating system will occur in about 15 years, based on the differences in capital and operating cost between the solar heating and conventional heating systems.

Question: What is the cost of constructing an office and administration facility only?

Answer: The $650,000 requested for an office and adminstration facility includes $40,000 for a solar heating system. It would cost $610,000 to construct the facility without a solar heating system, because even with a solar heating system a full capacity conventional heating system is needed as back-up during periods of cloudy weather.

LEETOWN WATER SUPPLY

Question: On page 228, $696,000 is requested for rehabilitation and development of the domestic water supply system for the fishery center in Leetown, West Virginia. What is now being used and how will these funds improve the present system?

Answer: The existing domestic water system was constructed piecemeal when the original facilities were constructed nearly fifty years ago and as additional buildings or other facilities were added over the years. In the last ten years, the facilities at the Leetown National Fishery Center have been greatly expanded with the construction of a new fish disease laboratory, a training academy, and other maintanence and support buildings, and rehabilitation of the old stone laboratory building for administration and interpretive use. This expansion has increased the demand on the existing water system to the point where supply could be inadequate or unreliable in times of heavy use. The requested funds will be used to upgrade the domestic water system to insure a safe, constant and modernized water supply to carry out research and other activities.

The improvements will include construction of a centralized water storage tank, and repair and rehabilitation of old distribution lines. Presently, the Center draws its domestic water from several sources with little storage capacity. This tends to be an unreliable system because the failure of one source can cause distribution to some buildings to be totally stopped, which could result in costly disruption of long-term scientific experiments. The construction of a centralized storage point and distribution system will provide a more reliable system and minimize risk of serious disruption.

STRIPED BASS STUDY

Question: $200,000 is requested for the striped bass study. What would be the consequences of terminating that study?

Answer: The original January budget request included $1,000,000 for the striped bass study, a $200,000 increase over FY 1981. In the budget amendment, all funding for the Anadromous Grant Program, including funding for the striped bass study was eliminated.

The original legislation authorized a three year cooperative study (FY 1980-82) by the Fish and Wildlife Service, National Marine Fishery Service, and the States to determine the current status of striped bass populations and the causes of recent population declines. An overall study framework and plan was completed.

Due to the complexity of striped bass population dynamics it is unlikely that, with the elimination of funding in FY 1982, an explanation of the decline will be determined in the immediate future, nor will other objectives of the legislation be met unless the cooperating states continue to carry out the study plan using state resources.

Question: How much funding has been provided to NOAA for this same program?

Answer: The original intent was that the Fish and Wildlife Service and the National Marine Fisheries Service would each receive 1/2 of the authorized funding for this cooperative study. Due to the late date of legislation enactment, the total FY 1980 funding of $1,000,000 was appropriated to the Fish and Wildlife Service with the intent that $500,000 be passed-on to NMFS. This was done under an interagency cooperative agreement with each agency obligating approximately $500,000. No funding was appropriated to the NMFS for the study in FY 1981. The Fish and Wildlife Service was appropriated $800,000.

CONSTRUCTION DESIGN PROCESS

Question: Who has the responsibility for designing a facility-for example, fish hatchery, office building, visitor center, residence?

Answer: The design of any facility in the Fish and Wildlife Service is essentially a two part action. In the initial part, the design is the responsibility of the program staff who will operate the facility. The project leader, whether a refuge manager, a fish hatchery manager, or a laboratory director, and/or other technical staff identifies the particular facility required and develops the criteria and operational requirements for the facility. In many instances, projects leaders are involved in developing the preliminary layout of the facility such as floor plans, placement of special equipment or other operational requirements.

The technical engineering design of a facility for purposes of bid solicitation and construction is the responsibility of engineering staffs either at the Denver Engineering Center or Regional Offices, depending on the project. Working with the program staffs and information provided by them, the engineers will prepare drawings, develop technical specifications and eventually prepare blueprints to be used for construction.

Question: Could you explain your policy for designing in-house or contracting out for architect, engineering, and design?

Answer: Our policy is to use in-house capability for designing facilities to the fullest extent possible. Over time we have found that this provides the most efficient use of funds and the most desirable product. We contract for Architectural and Engineering (A/E) services if the technical requirements or workload exceeds staff capability. In the past, we have used this type of Service approximately 10% of the time. Since many of our facilities tend to be one of a kind or unique to the requirements of the Fish and Wildlife Service, it is often difficult to find A/E firms that have the experience to do the design work without extensive input from our own engineering and technical staffs during design. This results in considerable internal cost in addition to the contract cost and is a primary reason the Service has not used A/E services more in the past.

Question: What is the feasibility of using standarized facility designs with modifications based on local, climate and technology changes?

Answer: Although the Fish and Wildlife Service does not have a standard design for all facilities, we have developed standard designs for some facilities common to many of our field stations. Some of these are headquarters buildings, shop/maintenance buildings, fences, water control structures, chemical storage buildings, fish rearing tanks, concrete fish raceways, dikes, and houses.

Question: Please describe your planning procedures prior to building a fish hatchery for anadromous fish.

Answer: The decision to build a hatchery for anadromous fish is the result of input from many parties. Almost without exception, construction of anadromous fish hatcheries on the Pacific coast for salmon and steelhead is related to the need for mitigation of Federal water projects, particularly high dams. In the Great Lakes area, construction of hatcheries to rear introduced species of anadromous fish is a State responsibility and function. In the Northeast, the need for an Atlantic salmon hatchery is generally established through cooperative studies between the Fish and Wildlife Service, National Marine Fisheries Service and the States. In all cases, the controlling factor in the design of the facility is the anadromous fish production to be achieved by the hatchery.

Mitigation hatcheries for the most part, are designed and constructed, part, by the agency responsible for the original water development project, such as the Corp of Engineers or the Water and Power Resources Service. In some instances, where mitigation is not directly involved such as the Makah and Warm Springs National Fish Hatcheries, responsibility for design and construction has been assigned to the Fish and Wildlife Service.

Once funds are provided for either planning or construction, various feasibility studies are undertaken relating to the availability of suitable water, condition of the land, and special concerns related to the construction of the facility such as availability of utilities, soil conditions or waste discharge. A decision is then made as to whether the design will be performed in-house or by A/E Contract. This, as stated previously, is determined by the workload and in-house capability of the engineering staff. In either case, the program staffs responsible for the ultimate operation of the facility are made a part of the design team developing plans and specifications.

Question: Who designs fish hatcheries such as the Makah Fish Hatchery?

Answer: As indicated previously, the design of a fish hatchery is dependent upon who has responsibility for the project. Mitigation hatcheries are designed by the agency responsible for the project requiring mitigation. If the responsibility for design is assigned to the Fish and Wildlife Service, a determination is made as to whether it will be done in-house or by A/E contract. In the case of the Makah National Fish Hatchery, an A/E firm -- Kramer, Chin and Mayo -- designed the facility.

Question: Please explain in detail the role of Fish and Wildlife Service in this endeavor.

Answer: The Makah tribe has always relied upon fishing as their principal livihood. The Fish and Wildlife Service has, for a number of years, provided technical assistance to the tribe in the management of Reservation fisheries. In the mid 1960's it became clear that the production of Salmon in Reservation rivers was not adequate to maintain populations under the pressure of ocean fishery demands. To partially alleviate this, since 1965 the fish and Wildlife Service has stocked Coho Salmon smolts in streams on the Makah Reservation. However, sufficient numbers of fish have never been available to provide significant increases in the spawning runs on the Reservation.

Because of the need to increase the availability of fish, in 1970 the tribe requested an investigation to determine the feasibility of establishing a salmon hatchery on the Makah Indian Reservation. A preliminary feasibility report issued on August 6, 1971, indicated that a hatchery could have significant long-range value by supplementing the natural production of salmon and other fish species in Makah Reservation streams. The report recommended that detail planning studies be funded.

Funds were appropriated in 1973 ($350,000) and 1974 ($500,000) to the Fish and Wildlife Service for preparation of a master plan, site exploration, preliminary studies, and final designs. The Fish and Wildlife Service awarded a contract to an A/E firm for a master plan and subsequent detail plans and designs which were completed in 1975. During the planning and design stage, Fish and Wildlife Service engineering and fishery personnel in the Portland Regional office monitored the work of the A/E firm to see that the Fish and Wildlife Service criteria were adequately and appropriately considered.

In 1975, funds were appropriated ($940,000) to the Fish and Wildlife Service for site preparation and access road construction. At this time, project reponsibility was transferred from the FWS Portland Regional Office to the newly established FWS Denver Engineering Center to monitor the construction contract. Subsequent construction appropriations in 1976 ($1,032,000), 1977 ($2,000,000), and 1978 ($3,600,000), provided funds to initiate construction of the facility.

The initial construction contract, issued in 1977, was terminated on August 29, 1977 due to two major design errors by the A/E firm. Engineering drawings and specifications accompanying the bid solicitation documents had been prepared by the A/E firm. Due to inadequate engineering staff, the Service was unable to review these drawings and specifications in precise detail. Consequently, the errors were not detected prior to issuance of the bid solicitation.

The Service decided to delay awarding a new contract until anticipated additional funding was appropriated in FY 1979 ($6,100,000) so a larger contract, including the original first phase plus an addtional second phase of construction, could be awarded. This larger contract for $11.4 million was awarded in late May 1979. Combining two phases of construction in one contract resulted in considerable savings in cost and time. This contract which includes fish production raceways, hatchery building, water supply dam, fish feed storage building, garage, sedimentation pond, and adult holding pond will be completed in 1981. The FWS Denver Engineering Center is providing construction management of this contract.

The FWS utilized consultants extensively in planning and design states of the Makah NFH because of insufficient in-house capability at that time. However, construction management of the entire project has been handled by the FWS, Denver Engineering Center. The problems encountered with the Makah project illustrate difficulties with using general A/E firms for design of specialized projects such as a fish hatchery.

Question: Are hatchery managers ever consulted during the hatchery design phase? Why not?

Answer: As explained previously, program staffs, including hatchery managers, are involved in the design of facilities from the time of initial identification through final design. Subsequently, a specific fish hatchery manager who may not have been involved in the design of a certain hatchery may be assigned as the manager of the facility. Often times, as a new facility is placed into operation, minor flaws or bugs develop that were unintentionally overlooked in the design and must be worked out as it becomes operational. Generally, any flaws or oversights are minor and can be compensated for. However, competent experienced fish hatchery personnel and biologists are always involved in the design of a new fish hatchery.

Mr. HESTER. Yes, sir. Thank you.

Refuges in Alaska

Question: Beginning at page 70, an increase of $2,777,000 is justified for the new Alaskan units of the Service. A reduction of $630,000 is proposed by the amendment. How much is in the base for these units? Provide for the record a table by account, activity, and refuge that shows how much is in the 1981 base for each area and how much is in the 1982 request for each comparable area?

Answer: The revised budget increase of $2,147,000 requested for operation and maintenance of refuges in Alaska relates only to migratory bird activities on those refuges. Additional funding is also requested for operation and maintenance of these refuges in the mammal and non-migratory bird program (+$2,063,000) and fishery assistance program (+$1,088,000).

The following table provides the FY 1981 base funding and FY 1982 requested increase for operation and maintenance and subsistence management of the sixteen refuges and the regional office in Alaska.

Resource Management Appropriation
Refuge Management ($ in thousands)

Refuge	FY 1981 Base		FY 1982 Increase		Total FY 1982 Budget	
	Wildlife	Fishery	Wildlife	Fishery	Wildlife	Fishery
Alaska Maritime	225	..	957	39	1,182	39
Alaska Peninsula	..	..	213	31	213	31
Arctic	364	91	237	22	601	113
Becharof	237	200	169	60	406	260
Innoko	..	..	120	46	120	46
Izembek	248	..	..	..	248	..
Kanuti	..	..	100	17	100	17
Kenai	581	60	170	..	751	60
Kodiak	273	90	112	78	385	168
Koyukuk	..	..	120	18	120	18
Nowitna	..	..	110	83	110	83
Selawik	..	..	120	25	120	25
Tetlin	..	..	80	7	80	7
Togiak	..	..	147	165	147	165
Yukon Delta	611	..	1,073	420	1,073	420
Yukon Flats	306	105	590	77	590	182
Regional Office	1,129	..	242	..	242	..
Totals	3,974	546	4,560	1,088	6,488	1,529

Question: What would be the consequences of slowing down the efforts of establishing and operating these new refuges?

Answer: The consequences of slowing down efforts of establishing and operating the new Alaskan refuges will result in: (1) a lack of basic management and protection of fish and wildlife resources on the nine additional and seven expanded refuges; (2) delays in the development of mandatory comprehensive conservation plans; (3) limited participation in resource baseline studies assessing impacts of land uses on wildlife resources;

and (4) possible increases in illegal activities such as mining, poaching, trespassing; and inadequate management of the subsistence priority use program leading to a possible over harvest of specific species.

Question: How long will it take to carry out all of the provisions of the Alaska legislation?

Answer: The Alaska National Interest Lands Conservation Act requires the Fish and Wildlife Service to administer and protect fish, wildlife and their habitat on sixteen refuges (76 million acres) in Alaska, indefinitely. In addition, the Service must perform or participate in a number of studies and activities within eight years of enactment of the legislation. A chonological summary of the Service's major responsibilities required by the Alaska legislation follows:

Major Responsibilities of the Fish and Wildlife Service under the Alaska National Interest Lands Conservation Act

Time Frame	Requirement
As soon as practicable	Maps and legal descriptions of refuges/wilderness created (103(b)).
3 to 7 years initially.	Planning and administration of national wildlife refuges: Sec. 304(g) requires comprehensive conservation plans for each refuge which will involve developing regulations/policies for implementing the following sections: -- compatability determinations for economic uses (minerals-304(b), 1008, 1009, 1010, and 1502; commercial fishing-304(e) and 1316; guiding-1316; agriculture-1324; access and transportation-Title XI; hydroelectric sites-1325). -- public uses (visitor services-1307; hunting and fishing-1316). -- interim management of nonfederal lands and management of easements (906(0). -- administration: local hire (1308); exchanges/acquisition (1302); administration sites and visitor facilities (1306). -- uses of cabins-1303; defense and navigation facilities-1310. -- on-going and new implementation of the Alaska Native Claims Settlement Act (901, 904, 905, 1402, 1403, 1406, 1409, 1410, 1411, 1415, 1424, 1436). -- wilderness and wild river reviews and management planning (604-606, 1315, 1316, 1317, 1010, and Title XI).

Time Frame	Requirement
2 to 5 3/4 years	Specific studies: Arctic Coastal Plain Study (1002). FWS has lead for 1002(c) study and administrative responsibilities for oversight of reports, activities; Bristol Bay Study (1203). Impacts management of five refuges.
Generally, as soon as practicable (6 months to 40 years)	Management coordination with adjacent land managers: Provisions for coordinating management programs: -- with specific Native corporations Aleuts (1417), Doyon (1420), Koniag (1427), Cook Inlet (1432), Arctic Slope (1431). -- general authorities - cooperative agreements with adjacent owners (304(f)); participation in Alaska Land Use Council and Federal Coordination Council (1201, 1202).
3 to 8 years	-- specific studies - participation in Bristol Bay Study (1203); North Slope Study (1001, 1004-1006); Caribou Study (307).
Annual and ongoing	--subsistence use and management (Title VIII). FWS role to assist Secretary in monitoring State program.
1 year plus	Other FWS program in Alaska: 1113 Stikine River study
On-going	Oil and gas leasing on public lands (Title X). Review applications for rights of way submitted per Title XI.

Questions: What is the total estimated cost of carrying out the legislation by Year?

Answer: It is difficult to project implementation costs at the present time given fiscal conditions, and the discretionary amounts that could be used for refuge management. The following table estimates our implementation costs on the basis of our current out-year projection:

Estimated Cost, by Year, of Implementing ANILCA ($ million)

	FY 1981	FY 1982	FY 1983
Refuge O&M	2.3	6.9	6.9
Special land use studies	.4	.7	.7
Total	2.7	7.6	7.6

TUESDAY, MARCH 31, 1981.

U.S. DEPARTMENT OF AGRICULTURE—FOREST SERVICE

WITNESSES

RICHARD E. LYNG, DEPUTY SECRETARY, U.S. DEPARTMENT OF AGRICULTURE

R. MAX PETERSON, CHIEF, FOREST SERVICE

DOUGLAS R. LEISZ, ASSOCIATE CHIEF, FOREST SERVICE

J. LAMAR BEASLEY, DEPUTY CHIEF, PROGRAMS AND LEGISLATION, FOREST SERVICE

ROBERT E. BUCKMAN, DEPUTY CHIEF, RESEARCH, FOREST SERVICE

RAYMOND M. HOUSLEY, DEPUTY CHIEF, NATIONAL FOREST SYSTEM, FOREST SERVICE

EINAR L. ROGET, DEPUTY CHIEF, STATE AND PRIVATE FORESTRY, FOREST SERVICE

JEROME A. MILES, DEPUTY CHIEF, ADMINISTRATION, FOREST SERVICE

WILLIAM L. RICE, STAFF DIRECTOR, PROGRAM DEVELOPMENT AND BUDGET, FOREST SERVICE

LEON H. ANDERSON, STAFF DIRECTOR, HUMAN RESOURCE PROGRAMS, FOREST SERVICE

ROBERT L. SHERMAN, DEPUTY DIRECTOR, BUDGET AND LEGISLATIVE SYSTEMS, UNITED STATES DEPARTMENT OF AGRICULTURE

Mr. YATES. The hearing will come to order.

This is the hearing on the appropriations for fiscal year 1982 for the Forest Service. Appearing in support of the appropriation is Mr. Richard E. Lyng, Deputy Secretary, United States Department of Agriculture; Mr. R. Max Peterson, Chief, Forest Service; Mr. Douglas R. Leisz, Associate Chief, Forest Service; Mr. J. Lamar Beasley, Deputy Chief, Programs and Legislation, Forest Service; Mr. Robert E. Buckman, Deputy Chief, Research, Forest Service.

Mr. Buckman, how is your research going?

Mr. BUCKMAN. Fine.

Mr. YATES. Where are all your exhibits? Usually you have some plywood that is glued together.

Mr. BUCKMAN. They are all on paper this time, Mr. Chairman.

Mr. YATES. All right.

Mr. Housley, Mr. Roget. Roget doesn't follow Einar, does it?

Mr. ROGET. It does if your are Norwegian, sir.

Mr. YATES. I see.

Mr. Miles, Mr. Rice, Mr. Anderson and Mr. Sherman.

Now we will put Mr. Lyng's biography into the record. At long last he is returning to Government after being President of the American Meat Institute.

[The biography follows:]

BIOGRAPHY OF RICHARD E. LYNG

Residence: Arlington, Va.
Positions held:

December 1979—January 1981, Consultant, Food and Agriculture.

(From July 1980 until November 4, 1980—National Co-Director, Reagan/Bush Committee; from November 12, 1980 until January 1981—Transition Team Leader, Department of Agriculture, Commodity Futures Trading Commission, and Farm Credit Administration.

July 1973—November 1979, President, American Meat Institute, Washington, D.C.

(During Fall 1976, took 3 months leave to be National Director, Food and Agriculture, President Ford Committee)

February 1969—February 1973, Assistant Secretary, United States Department of Agriculture (Marketing and Consumer Activities).

February 1967—February 1969, Deputy Director and Director, California State Department of Agriculture, Sacramento, Calif.

October 1945-February 1967, President, Ed. J. Lyng Company, Inc., Modesto, California (A family seed and bean production and processing company).

January 1942—October 1945, U.S. Army—30 months in South Pacific (Guadalcanal—Bougainville).

June 1940—January 1942, Fieldman, Ed. J. Lyng Company, Inc., Modesto, Calif.

Education: University of Notre Dame, PhB (cum laude) 1940.

Honors: Animal Agriculture Award, American Meat Institute, 1979; Honorary National Member, Alpha Zeta Honor Fraternity, 1974; and Honorary Member, Rotary International, Modesto Club since 1967.

Directorships: Tri-Valley Growers, San Francisco, 1975 to January 1981; Chicago Mercantile Exchange, 1975 to 1979; Refrigeration Research Foundation, 1974 to 1979; Agribusiness Advisory Board, University of Santa Clara, 1974 to 1979; Commodity Credit Corporation (USDA), 1969 to 1973; USDA Graduate School, 1970 to 1973; and Board of Trustees, Foundation for American Agriculture, 1975 to present.

Current activities: Member, Agriculture Committee, Chamber of Commerce of the United States, 1978 to present; and Member, Animal Health Committee, National Academy of Science 1976 to 1980.

Other activities—past: Chairman, Food Industry Sector Advisory Committee (For multilateral trade negotiations) 1975 to 1980; President, Modesto (CA) Chamber of Commerce 1952 to 1953; President, California Seed Association 1957 to 1958; Director, Pacific States Seed Association 1960; President, Modesto (CA) Rotary Club 1961; Chairman, Stanislaus County (CA) Republican Central Committee 1961 to 1962; Chairman, Interstate Pest Control Compact 1968 to 1969; Chairman, USDA Child Nutrition Advisory Board 1971 to 1973; and Member, USDA Foreign Animal Disease Advisory Committee, 1977 to 1979.

Listings: Who's Who in America; Who's Who in the World; International Who's Who; and Who's Who in Politics.

Personal: Born June 29, 1918—San Francisco, Calif.; Married June 1945—Bethyl Ball; Daughters: Jeanette Lyng Robinson—Modesto, Calif.; and Marilyn Lyng O'Connell—Abilene, Tex.

Mr. YATES. We have Mr. Peterson's biography in the earlier hearing.

Mr. PETERSON. Yes, sir.

Mr. YATES. Mr. Lyng, your statement may be made a part of the record at this point.

[The statement follows:]

STATEMENT OF RICHARD E. LYNG, DEPUTY SECRETARY U.S. DEPARTMENT OF AGRICULTURE

Mr. Chairman and Members of the Committee, we welcome the opportunity to appear before you today to discuss the fiscal year 1982 budget of the Forest Service. This is the first time for me to appear before this Subcommittee, and I look forward to working with you. I am accompanied by Max Peterson, Chief of the Forest Service.

During the past two months, I have participated in meetings with President Reagan in formulating policies to implement the Program for Economic Recovery. So that the Subcommittee will understand the context in which the Forest Service budget recommendations were considered, I would like briefly to review the overall USDA budget and the impact of the proposed changes. USDA program level, which represents the value of all loans, grants and services USDA provides, was $42 billion in 1978 and was projected in the Carter budget to exceed $55 billion in 1981—a growth of 31 percent. The overall growth in program level was due primarily to increased funding for the domestic food assistance programs and increased demand for USDA credit support particularly in Farmers Home Administration programs.

The new budget is designed to curtail the growth in USDA program level by restricting them to $53 billion in 1981 and $47 billion in 1982. To do this requires dramatic action with respect to both food assistance programs and USDA credit activities.

The total program level reduction to the Carter budget in 1982 is $7.7 billion, or 14 percent. The major areas are: (1) the combined activities of Farmers Home Administration, Rural Electrification Administration and price support programs, which are reduced by $3.6 billion; (2) domestic food assistance programs which are reduced by $3.7 billion; and (3) the "all other" category of programs, which includes services such as soil conservation, research, extension, meat inspection, and a number of other activities. Total reductions in this category were $.4 billion.

For 1982, the proposed budget for the Forest Service is $2.236 billion, which is $81 million above the current estimate for fiscal year 1981. Despite the necessity of budget cutbacks and reduced spending, the Administration's proposal for the 1982 Forest Service budget has recognized the need to make investments which will improve the supply of products from National Forests and non-industrial private forest lands, and provide new research required to improve productivity on public and private lands.

The Federal Government realizes revenue from many Forest Service activities, the bulk of which is from the sale of timber. The Federal Government's timber management policies have major impacts on lumber and plywood prices and on regional timber-based economics. In addition, there are oil, gas, coal, and other energy minerals on National Forest Systems lands that can contribute to improving the Nation's energy supply outlook. National forests are also extemely important for recreation, wildlife, grazing and water. We intend for the national forests to make contributions to economic progress with careful consideration of economic and environmental goals.

The revised budget includes a reduction of $73.8 million from the previous Administration's proposal. In addition, revisions to the Youth Conservation Corps, Young Adult Conservation Corps, Land and Water Conservation Fund, Forestry Incentives Program, and Agricultural Conservation Program, while not part of this budget, will require additional program reductions.

As you know, competition among different uses of national forests is intense. Timber supply is very tight in some regions, energy and mineral development continues to expand, and pressure for additional designation of lands as wilderness continues. Demand for other important uses is also increasing. The pressures on the Federal budget are intense and the Administration is committed to controlling the growth of Federal spending. This will require paying very close attention to overall budget priorities. I look forward to working with the Committee on these important matters.

I appreciated this opportunity to appear before you today. The Chief and I will be happy to answer any questions you may have.

Mr. YATES. We would be glad to hear what you have to say, Mr. Lyng.

Mr. LYNG. I have a very brief statement, Mr. Chairman.

Mr. YATES. You may proceed.

Mr. LYNG. I welcome the opportunity to appear before you this morning. This is the first time I have appeared before this committee and I look forward to working with the committee. During the past couple of months I have been working with the President in formulating policies to implement the Program for Economic Recovery. So that the subcommittee will understand the context in which the Forest Service budget recommendations were considered, I would like to briefly review the overall USDA budget and the impact of the proposed changes.

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For 1982 the proposed budget for the Forest Service is $2.236 billion which is $81 million above the current estimate for fiscal year 1981. Despite the necessity of budget cutbacks and reduced spending, the Administration's proposal for the 1982 Forest Service budget has recognized the need to make investments which will improve the supply of products from National Forests and non-industrial private forest lands, and provide new research required to improve productivity on public and private lands.

The Federal Government realizes revenue from many Forest Service activities, the bulk of which is from the sale of timber. The Federal Government's timber management policies have major impacts on lumber and plywood prices and on regional timber-based economics. In addition, there are oil, gas, coal and other energy minerals on National Forest Systems lands that can contribute to improving the Nation's energy supply outlook. National forests are also extremely important for recreation, wildlife, grazing and water. We intend for the national forests to make contributions to economic progress with careful consideration of economic and environmental goals.

The revised budget includes a reduction of $73.8 million from the previous Administration's proposal. In addition, revisions to the Youth Conservation Corps, Young Adult Conservation Corps, Land and Water Conservation Fund, Forestry Incentives Program, and Agricultural Conservation Program, while not part of this budget, will require additional program reductions.

As the committee knows, competition among different uses of national forests is intense. Timber supply is very tight in some regions, energy and mineral development continues to expand, and pressure for additional designation of lands as wilderness continues. Demand for other important uses is also increasing. The pressures on the Federal budget are intense and the Administration is committed to controlling the growth of Federal spending. This will require paying very close attentin to overall budget priorities. I look forward to working with the committee on these important matters.

I appreciate this opportunity to appear before you today. The Chief and I will be happy to try to answer any questions you may have.

Mr. YATES. Thank you, Mr. Lyng.

Mr. Peterson's statement may be made a part of the record.
[The statement:]

STATEMENT OF R. MAX PETERSON, CHIEF
UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE
BEFORE THE HOUSE APPROPRIATIONS SUBCOMMITTEE
INTERIOR AND RELATED AGENCIES

Mr. Chairman and Members of the Committee--
I want to thank you for the opportunity of appearing before you today to discuss the Forest Service's 1982 budget.

The management of natural resources has become a matter of increasing concern in recent years because demand has been increasing more rapidly than supply. In this period of increasing demands, "renewable" resources have drawn particular attention.

Before getting into the details of the budget proposals for 1982 and a review of 1980 accomplishments, I would like to share with you an overview of the 1979 RPA Assessment and 1980 RPA Program. These are required by the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA). The Act provides the framework for a far-reaching program for managing natural resources. It directed the Secretary of Agriculture to develop an assessment in 1974, 1979 and every ten years thereafter; and to prepare a recommended program in 1975, 1980 and every five years thereafter. The Assessment, Recommended Program and revised Statement of Policy are used as basic guides for planning at the National Forest and Regional level as well as by State and private landowners in making decisions. New legislation, the overall economy, and current events must also be used in developing annual budget proposals.

1980 Accomplishments

There were many accomplishments in 1980. Six million additional recreation visitor-days were recorded on the National Forests in 1980 over 1979, for a total of 225 million. Forty percent (40%) of all recreation visitor-days on Federal land occur on National Forests. Most other targets were met or exceeded. With the help of various human resource programs, 1,653 miles of trails were constructed compared to our target of 1,213 miles.

We exceeded our timber sale offered target of 12.2 billion board feet by 200 million board feet. This includes 1.9 billion board feet under the salvage sales program. We also met or exceeded targets for fuels management, mineral leases and permits processed, range forage improvements, wildlife habitat improvement, landowners assisted through the State and Private Forestry programs, improved utilization of wood, rural community fire protection grants, noxious farm weed control, and most of our human resource programs. We had no significant shortfalls in the resource areas. A detailed review of the 1980 targets and accomplishments is included in the Fiscal Year 1980 Report of the Forest Service.

1982 Budget

Research

The Forest Research program is funded at $134.3 million, which is one million below their 1982 base level (base level is defined as funds needed to maintain 1981 goods and services). We will continue to emphasize eastern hardwoods research, softwoods timber supply research, rangeland rehabilitation research, anadromous fish research, and water and air quality research. We are convinced that carefully planned research investments offer some of the best opportunities for the Nation to improve forest productivity and wood utilization which will help relieve the upward pressure on forest product prices.

State and Private Forestry

State and Private Forestry programs are funded at $69.5 million, which is $10.2 million below their 1982 base level. The 1982 program will be directed toward intensified surveillance and evaluation of forest insect and diseases, improved wood utilization and increased seedling production in State nurseries, and for improved technology transfer assistance to cooperators.

There are program reductions in Rural Fire Protection and Control, Urban Forestry Assistance, Pinchot Institute, FIRESCOPE, the Dutch elm disease demonstration project, and the Boundary Waters Canoe Area grant program.

National Forest System

The National Forest System is funded at $958.7 million, which is $16.6 million below their 1982 base level. The proposed budget allows the Forest Service to meet several critical national objectives. For instance, the $5 million increase in minerals area management will provide for the additional processing of approximately 2,300 energy-related lease applications and operating plans.

The $9 million increase in reforestation and stand improvement is needed to complete work on acres originally planned for the Young Adult Conservation Corps. This increase will enable the Forest Service to stay on the schedule to eliminate the feasible reforestation backlog by 1985.

Even though the overall Forest Service budget has been reduced, the proposed timber sales program of 11.9 billion board feet has been retained at the level proposed by the previous Administration. A constant or rising level of timber sales is essential to reduce inflationary pressures and to provide readily available timber to suppliers so they can respond promptly to market demands which will accompany an upswing in the housing market.

Program levels for fire protection, cooperative law enforcement, road and trail maintenance, recreation, wildlife, range, and soil and water management are below their 1982 base level but are at or above the 1981 appropriations.

Construction and Land Acquisition

The Construction and Land Acquisition appropriation is proposed at $473.7 million. This is $32.0 million less than the Carter budget. Reductions to road construction funding will not reduce current or future years timber sales targets. Reductions will be made through improved management and efficiency and a review of our road standards and road reconstruction activities.

Funding for construction and rehabilitation of facilities is proposed at the 1981 level. Trail construction is proposed at $4.7 million, which is $1.2 million above 1981. There is no funding proposed for land acquisition.

A significant challenge faced by the Forest Service and Administration in framing the budget request is the multiyear nature of much of our work. I'm sure the Committee will also face this challenge in reviewing our budget.

An example of this multiyear element of our budget is in the timber sale program. We estimate that $936 million is needed for timber sale preparation, support costs, and roads to prepare 11.9 billion board feet of timber for sale in 1982. Actually, much of the work to prepare this volume was done in the previous five years (1977-81). In 1982, we will be working on timber sales that will be sold in 1982-85. Road location, design and construction will be completed for roads that will be in use well after the year 2000.

Research on eastern hardwoods is another example of the multiyear nature of our work. Eastern hardwoods research may result in applications for 1982, but these results could be effective in 1983-2050 and beyond.

The RPA Program looks at costs, outputs and benefits over a time frame much longer than one year. This program was used to guide the development of our 1982 budget and is particularly useful by giving attention to multiyear programs.

Another important task facing the Forest Service, as well as other government agencies, is to increase the productivity of our employees. During the past ten years the Forest Service has increased productivity by 13 percent (measured in 1980 dollars). The President has asked us to accomplish our objectives with a minimum number of Federal employees. The further reduction of 330 person-years called for in the budget revision as well as the proposed elimination of the Youth Conservation Corps and the Young Adult Conservation Corps will challenge us to increase our productivity even more. We are seeking new ways of doing business to accomplish our objectives more efficiently with less employees.

I appreciate this opportunity to discuss these matters with you. I will be glad to answer any questions you might have.

Mr. YATES. Mr. Lyng, I don't have any questions for you. Mr. Peterson could probably answer the questions that I may have. I know that you are under special pressure this morning and the committee would be glad to excuse you if you so request unless Mr. McDade has some questions at the present time.

Mr. McDADE. No.

Mr. LYNG. I stand ready, if needed, to come back before the committee.

Mr. YATES. Thank you very much.

BUDGET REDUCTIONS AND RESCISSIONS

Mr. Peterson, would you like to give us an overall review of how you see the needs of the Forest Service for the coming year?

You don't have any rescissions, do you? How did you escape them?

Mr. PETERSON. There is a rescission up there for the Land and Water Conservation Fund that we share in and there is also a rescission proposed for YCC that we share in. In fact, just to give you an overall picture, there will be about a $21 million reduction in YCC in 1982 from 1981.

Mr. YATES. That is your share of the $60 million?

Mr. PETERSON. That is our share, yes. In addition, there will be about a $42 million reduction in the Young Adult Conservation Corps; about $74 million in the Land and Water Conservation Fund; and about $9 million in other programs like Watershed Planning. That adds up to about $146 million from allocated funds, and $74 million in our budget, for a total of $220 million, which is about 10 percent of our budget.

Mr. YATES. Let's take your share of the rescission on the YCC. Will you have to do outside contracting work in order to accomplish the work that should be done by the YCC or the YACC? The YACC is in another budget but I have the impression that both of these programs do provide very constructive work for the Forest Service and in addition for the Park Service and for POM. Does this rescission for 1981 mean that you will have to turn to other sources for getting the work done or will you let the work go?

Mr. PETERSON. Mr. Chairman, in most cases we simply will not do as much work as we would have done otherwise.

Mr. YATES. Well, not as much work, all right, but will you be doing some of it?

REFORESTATION BACKLOG

Mr. PETERSON. For example, in reforestation we will do less reforestation than we have ordinarily done.

Mr. YATES. Why would you do that? When you say you will do less reforestation, does this mean that you will not be adhering to the program that the committee has had in operation for almost 10 years now?

Mr. PETERSON. No. We will be on line to complete that backlog. We will still be working towards that 1985 date to complete the backlog. We did get a budget addition to cover the YACC cutback for reforestation.

Mr. YATES. You got a budget addition to cover the backlog. Do you mean in the budget we brought out?

Mr. PETERSON. No. The budget that is before you now contains some increased money for reforestation recognizing we would not have the YACC program but that is the only exception to the general rule that we will be doing less work.

Mr. YATES. As you know, the committee is very much interested in the reforestation program.

Mr. PETERSON. Yes.

Mr. YATES. The committee has the impression that the funds that it has placed in the budget over the year would permit the eradication over a 10 year period of the total backlog in reforestation. Is that still on target?

Mr. PETERSON. It is. We have no YCC rescissions before the Congress now.

Mr. YATES. Let's forget the YCC and the YACC rescissions at the moment.

Mr. PETERSON. All right.

Mr. YATES. Let's just stick to reforestation unless YCC and YACC bear on that and then you can bring them in.

We are interested in the rate of reforestation. Now I don't know. How many years has it been since we started that reforestation program? Seven or eight years, has it not?

Mr. PETERSON. Yes, Seven or eight years.

Mr. YATES. We have been adding extra money to the budget in order to eliminate totally the reforestation backlog. We insisted that for every tree that was cut there be one planted. Now tell us what the state of that reforestation program is.

Mr. PETERSON. I believe, Mr. Chairman, that if we do the level that is in our budget for 1982 and continue that rate towards 1985 that we could still get there in 1985.

Mr. YATES. You don't sound very optimistic. Why is that?

Mr. PETERSON. Well, we will be doing a little less in 1982 than we originally planned.

Mr. YATES. Why?

EFFECT OF YCC REDUCTION ON REFORESTATION—EXHIBIT A

Mr. PETERSON. Because of the YCC reduction.

Mr. YATES. You are telling the committee then that the YCC reduction will compel you to resort to outside contracting work and outside expenditures in order to adhere to the reforestation program. Is that what you are saying?

Mr. PETERSON. I think we will be doing some of that, yes, but we will also be moving to 1983 some of the work we would have ordinarily have done in 1982.

Mr. YATES. You will be deferring?

Mr. PETERSON. Yes, we will be deferring some work that would have been by the YCC.

Mr. YATES. How much money is involved in that? Suppose you were to adhere to the same program of eliminating the backlog on the basis of the remaining time period. How much money have you in the budget for that purpose and how much more money would you need in order to adhere to that schedule?

Mr. PETERSON. I think that we had planned for YCC and YACC all together to do about 20,000 acres.

Excuse me. I think, backing up, in YACC, the Young Adult Conservation Corps, we did add money to this budget to cover work they would ordinarily have done so all we are talking about is the work that YCC would have done and we will have to provide you that number. I don't have it at my fingertips but we can probably provide it before the morning is over.

Mr. YATES. How many acres still remain to be reforested in your backlog?

Mr. PETERSON. Why don't we show you a chart. We have a chart here.

Mr. YATES. Fine, show us the chart.

Are there other charts that you will be referring to?

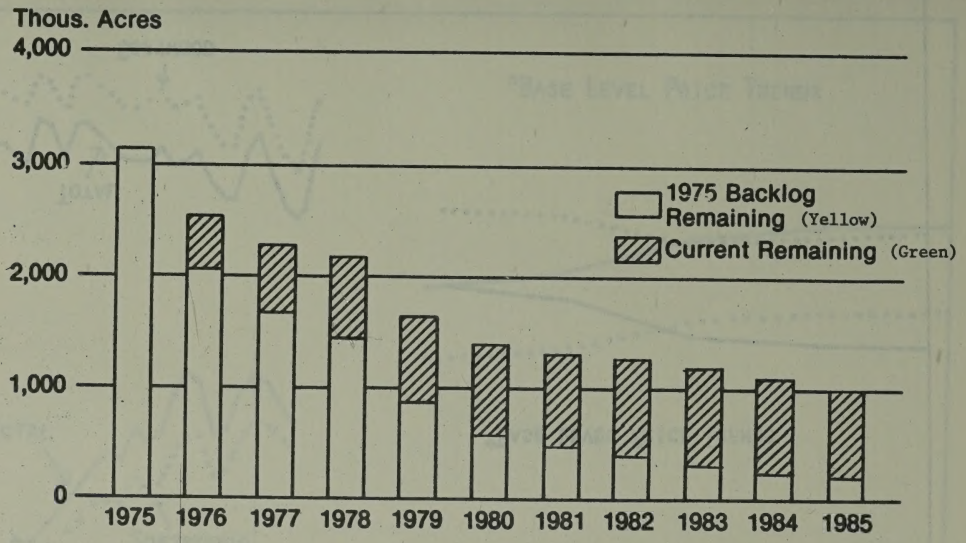
Mr. PETERSON. Yes.

Mr. YATES. These may be made a part of the record at this point.

[The charts follow:]

EXHIBIT A

Reforestation Needs Total



USDA, Forest Service
2/80

EXHIBIT B

LUMBER CONSUMPTION, 1950 - 80, WITH PROJECTIONS* TO 2030

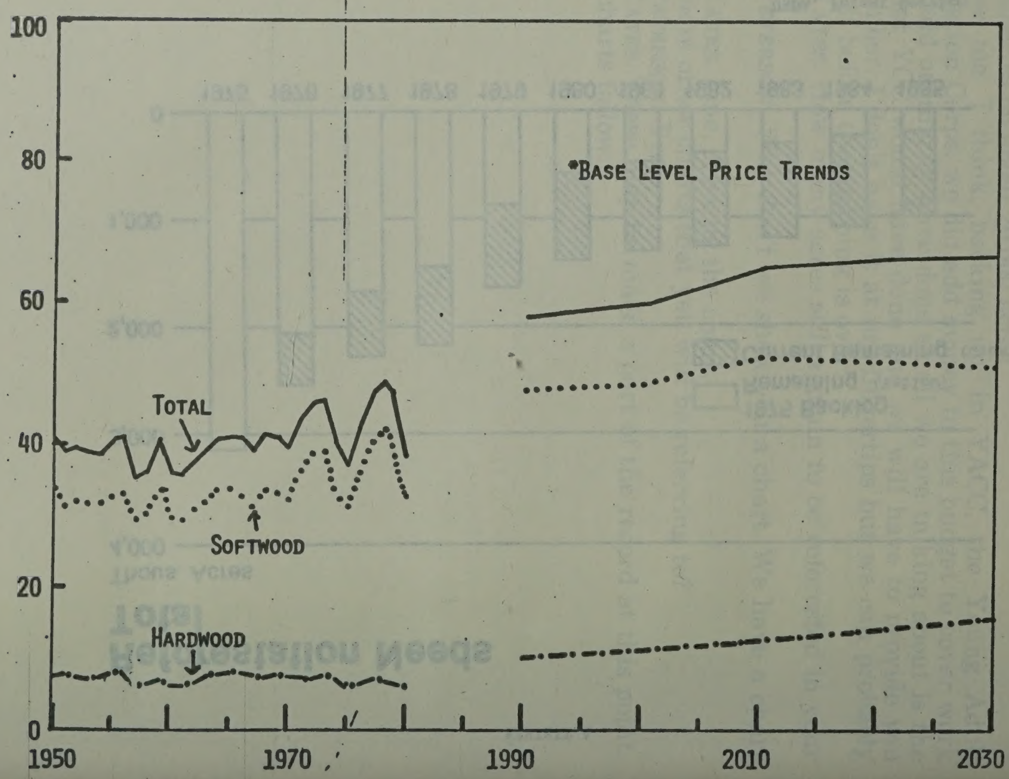


EXHIBIT C

PLYWOOD CONSUMPTION, 1950 - 80, WITH PROJECTIONS* TO 2030

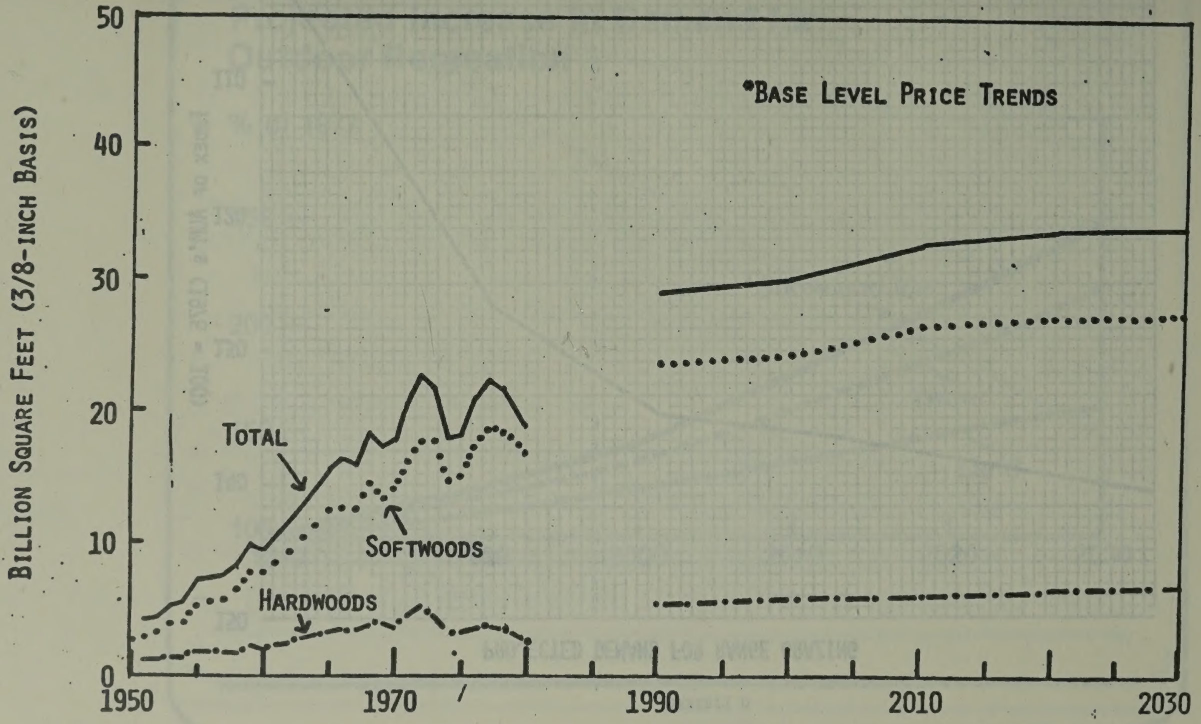


EXHIBIT D

PROJECTED DEMAND FOR RANGE GRAZING

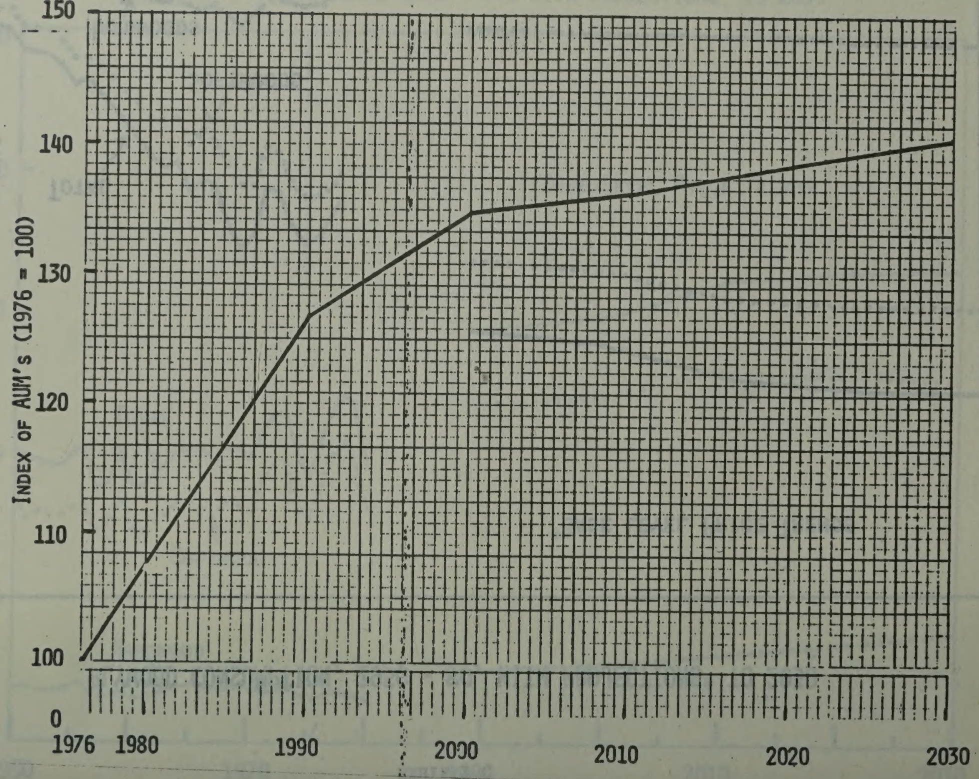


EXHIBIT E

Projected Increase in Demand for Outdoor Recreation

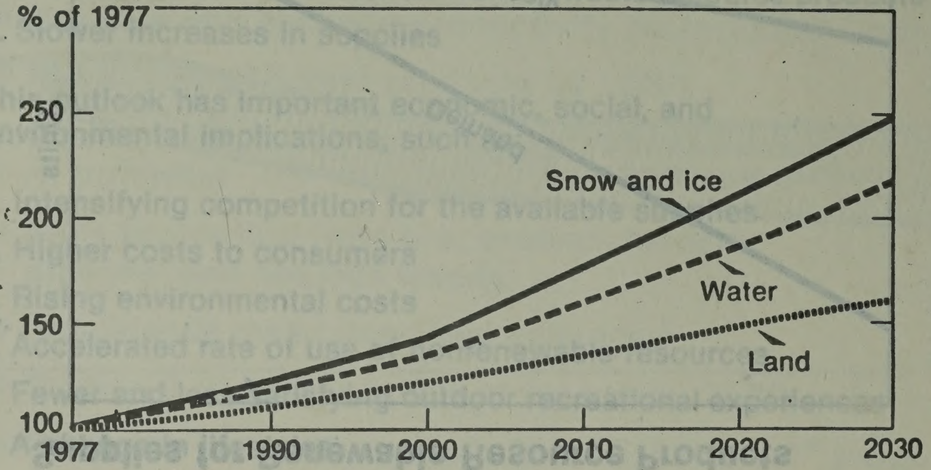


EXHIBIT F

Schematic Illustration of Projected Demands and Supplies for Renewable Resource Products

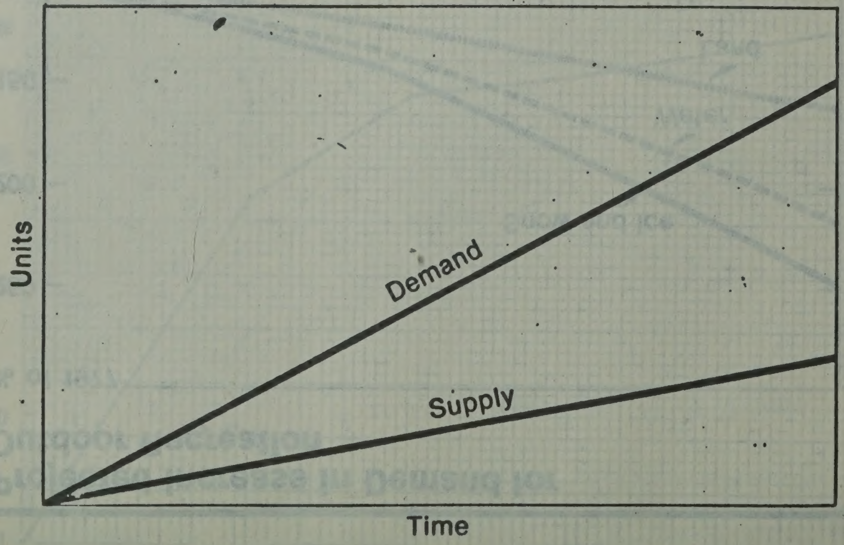


EXHIBIT G

In Summation, the Nation is Faced with:

1. Rapidly increasing demands for renewable resource products
2. Slower increases in supplies

This outlook has important economic, social, and environmental implications, such as:

1. Intensifying competition for the available supplies
2. Higher costs to consumers
3. Rising environmental costs
4. Accelerated rate of use of nonrenewable resources
5. Fewer and less satisfying outdoor recreational experiences
6. A change in lifestyles.

EXHIBIT H

RPA PROGRAM — 1980 UPDATE

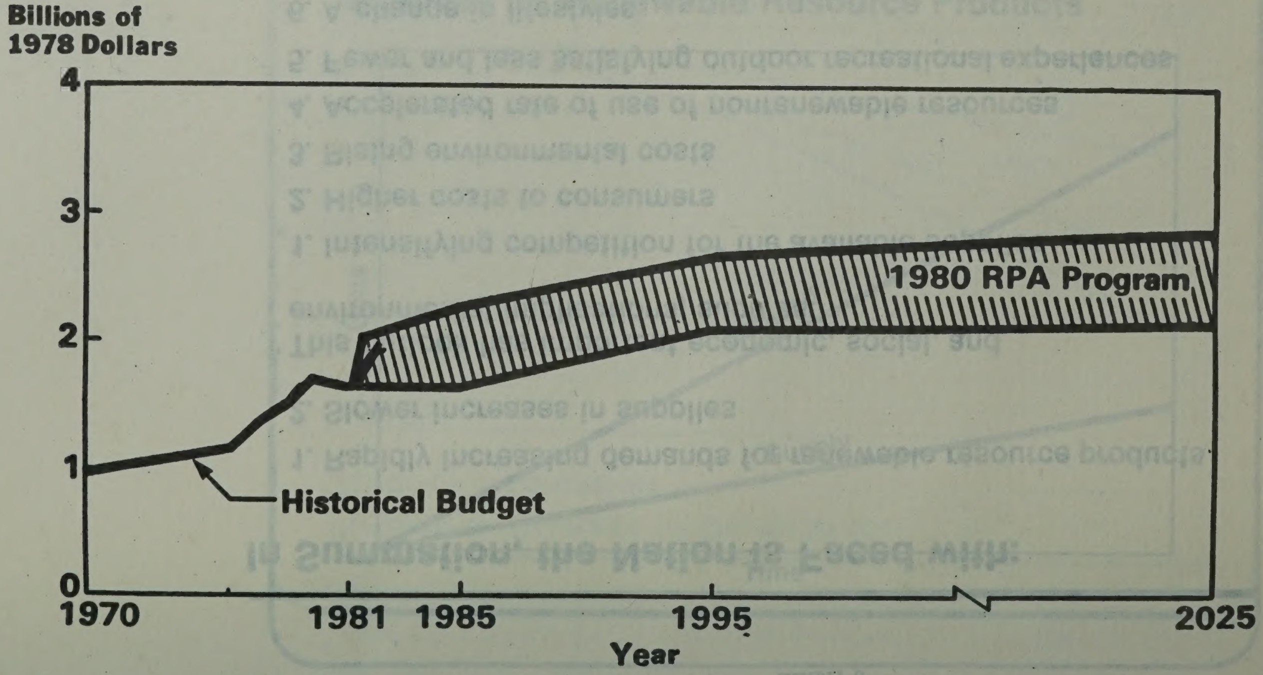


EXHIBIT I

Previous Administration's RPA Statement of Policy

Congressional Modification

- Maintain and enhance productivity on forested lands
- Net export of forest products by 2030
- Commercial timber lands brought to 90 percent of potential
- More protection from fire, erosion, insects, disease, and noxious weeds
- Rangelands maintained and enhanced
- Provide 310 million AUM's of forage by 2030
- Congress generally accepts the "High/Bound" program
- "High/Bound" may not be sufficient for range, watershed, state and private forestry, and timber management

EXHIBIT J

Range

National Forest System
Permitted Grazing Use

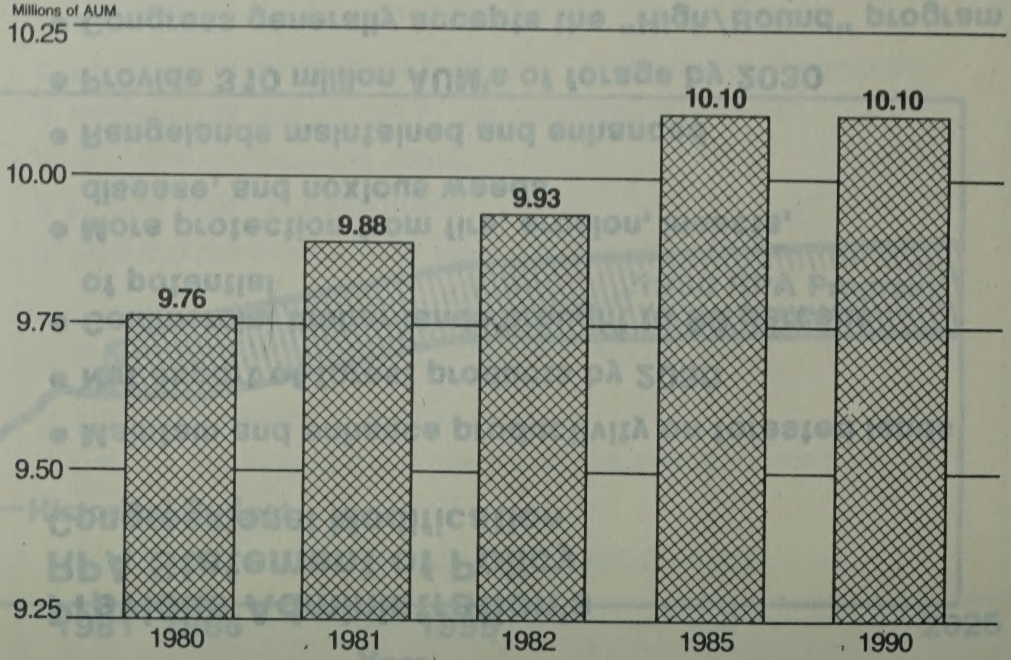


EXHIBIT K

Minerals Program

National Forest System
Minerals Leases and Permits
1980 RPA Projection and Revised Estimate

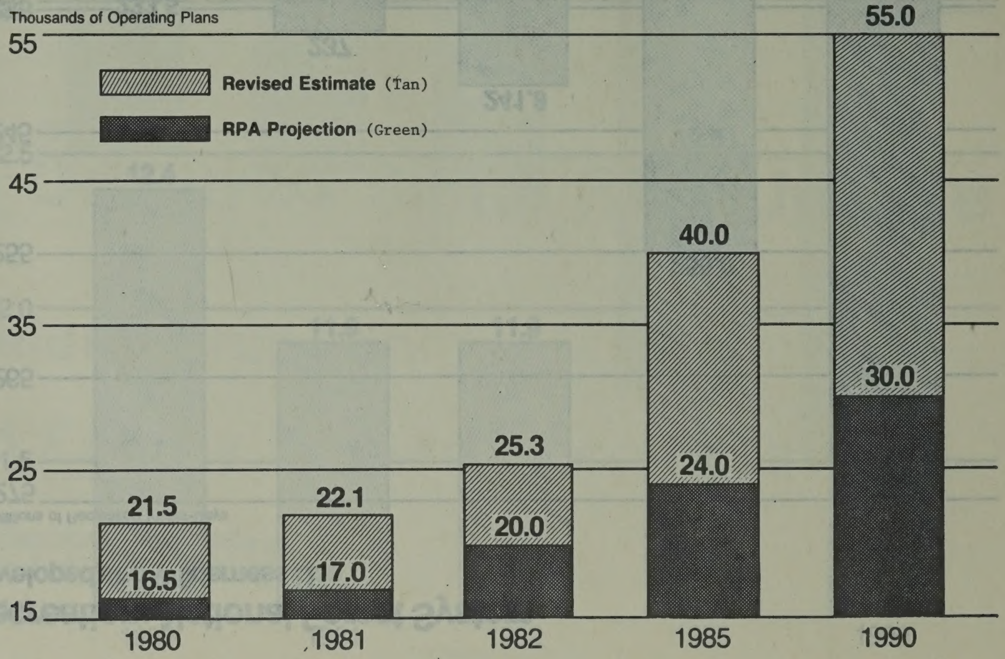


EXHIBIT L

Recreation: National Forest System
Developed and Wilderness Use

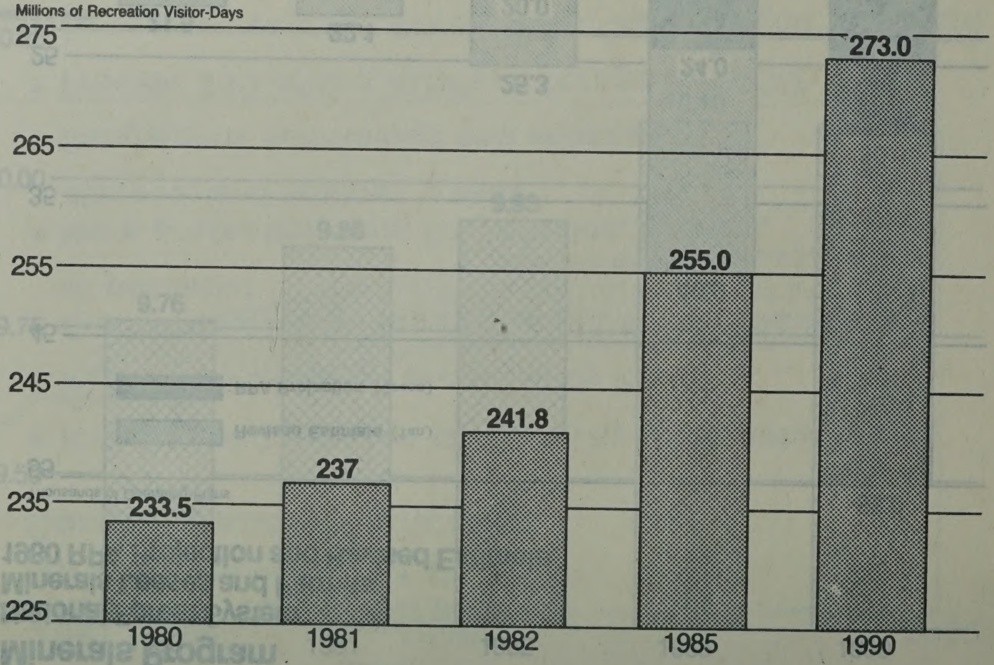


EXHIBIT M

Timber

National Forest System
Sales Offered

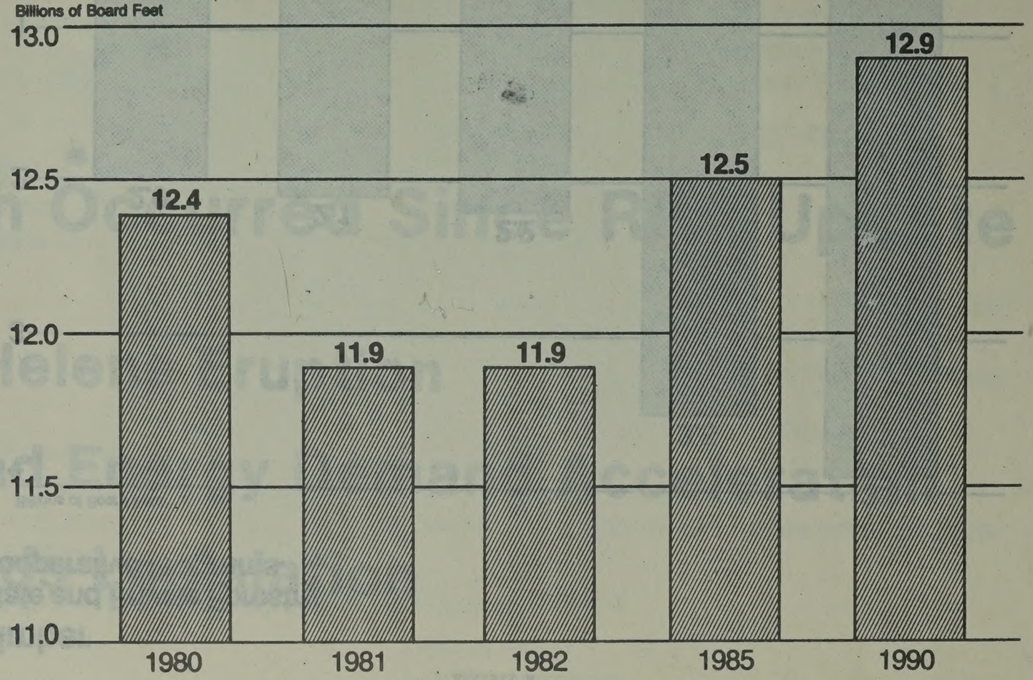


EXHIBIT N

Timber

State and Private Forestry Cooperative Programs

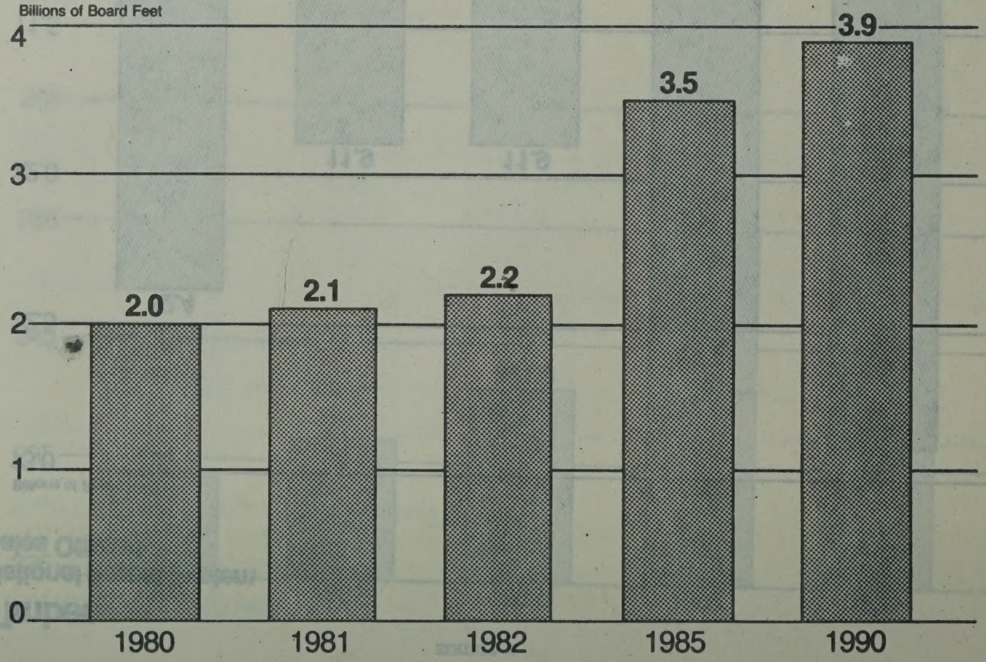


EXHIBIT O

Items which Occurred Since RPA Update

- Mount St. Helens Eruption
- Minerals and Energy Demand Acceleration
- Alaska Lands Legislation

EXHIBIT P

Distribution of 1982 President's Budget

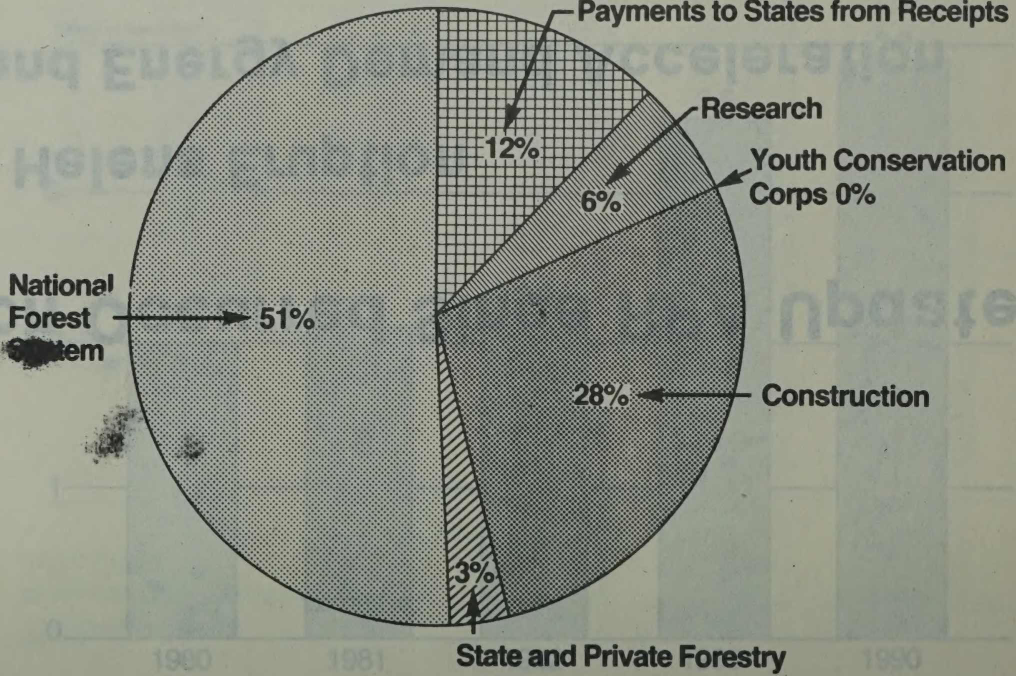


EXHIBIT Q

Research Program FY 1982

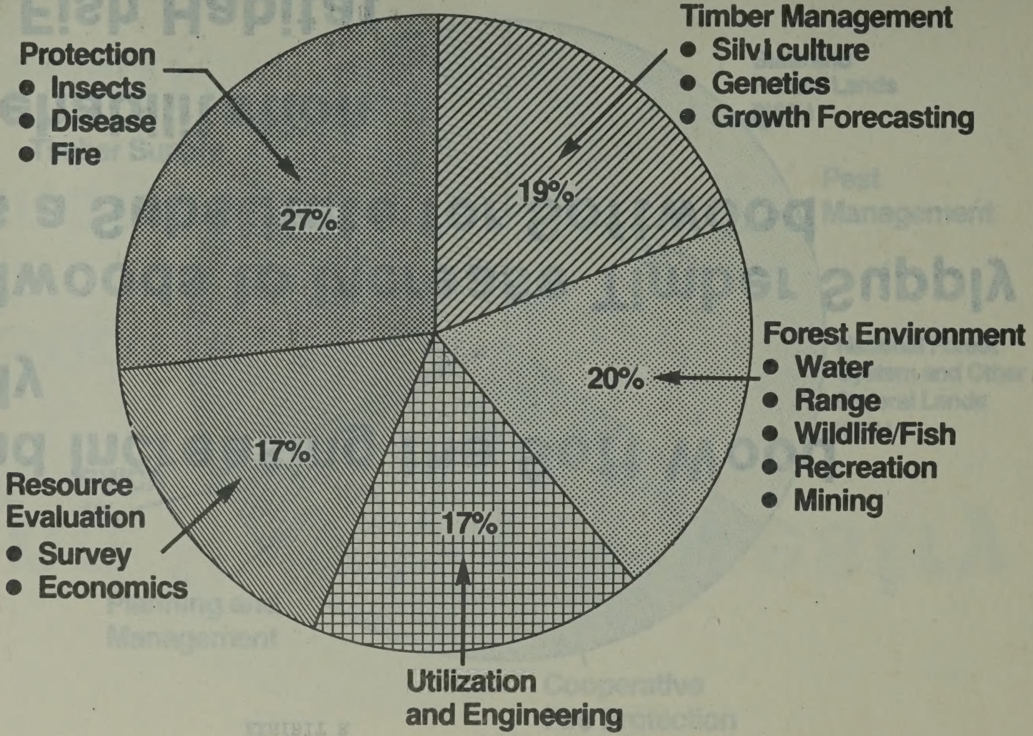


EXHIBIT R

Research

- Extending and Increasing the Soft Wood Timber Supply
- Eastern Hardwoods to Increase Timber Supply and Serve as a Substitute for Softwood
- Rangeland Rehabilitation
- Anadromous Fish Habitat
- Water and Air Quality

EXHIBIT S

State and Private Forestry FY 1982

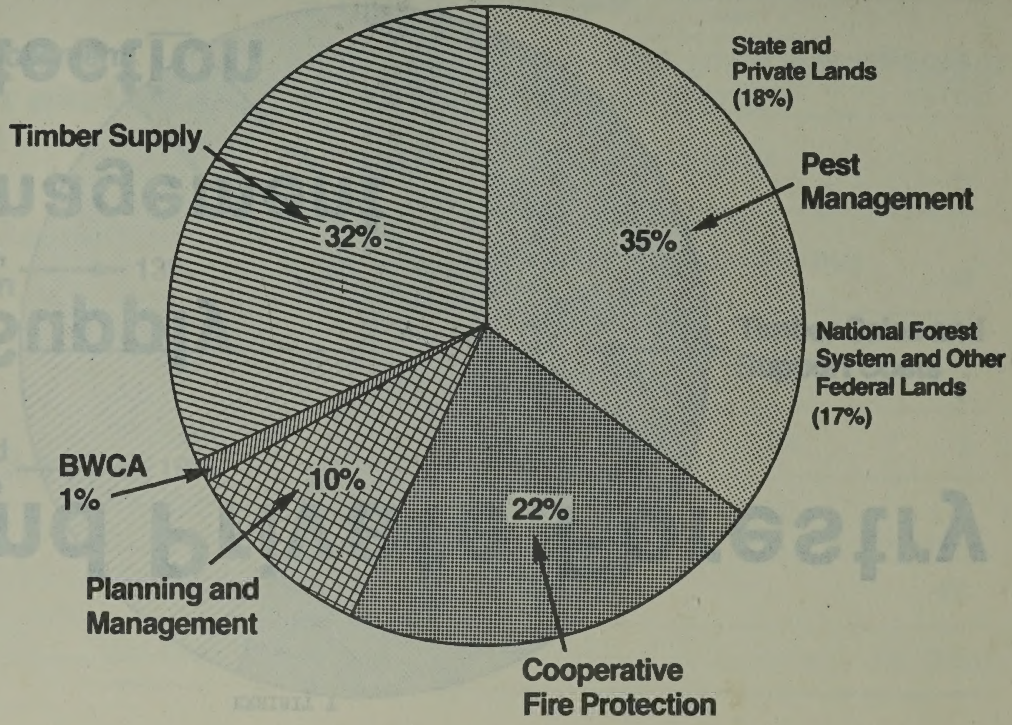


EXHIBIT T

State and Private Forestry

- Timber Supply
- Pest Management
- Fire Protection
- Planning and Management

EXHIBIT U

National Forest System FY 1982

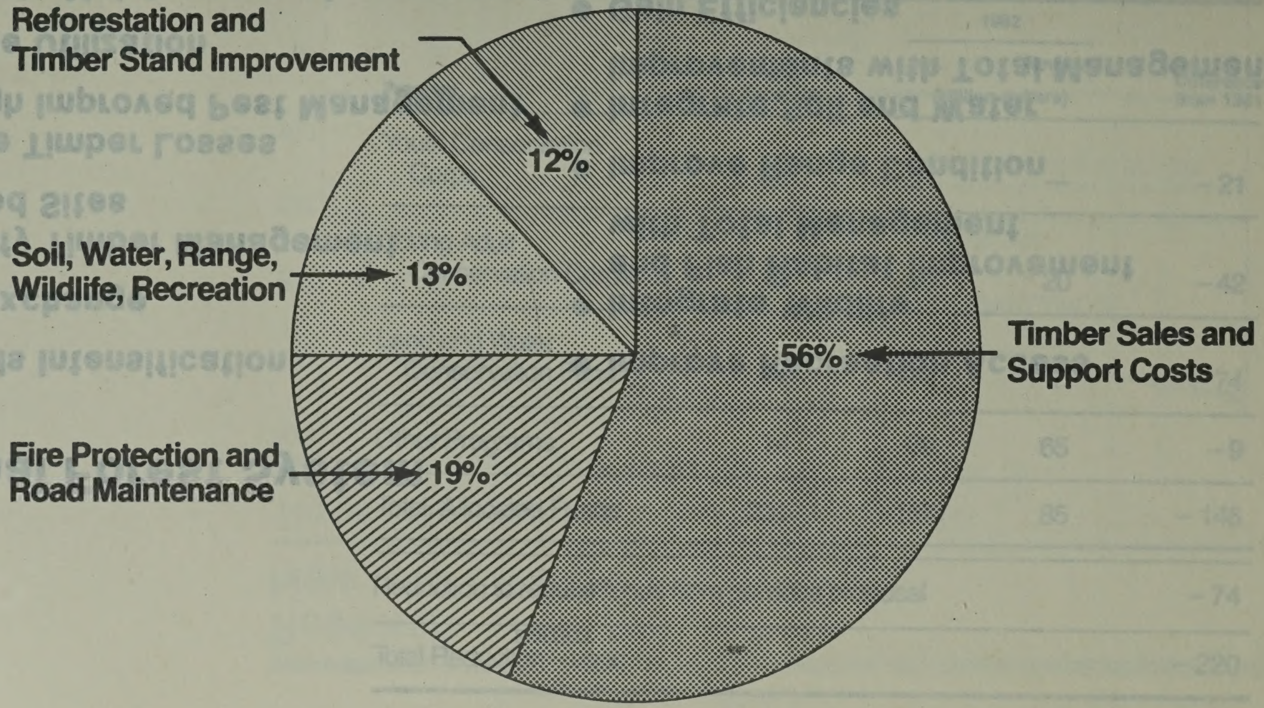


EXHIBIT V

National Forest System

- Minerals Intensification
- Land Exchange
- Intensify Timber Management on Good Sites
- Reduce Timber Losses Through Improved Pest Management
- Improve Utilization
- Adequate Maintenance of Recreation Facilities--Volunteers
- Improve Recreation Access
- Integrate Wildlife and Fish Habitat Improvement with Total Management
- Improve Range Condition
- Integrate Soil and Water Improvements with Total Management
- Gain Efficiencies in Transportation and Access Costs

EXHIBIT W

Funds Received from other Agencies

Program	1981 Program	1982 Jan.	1982 Revised	Difference from 1981
		(Million dollars)		
Youth Conservation Corps	21	21	—	−21
Young Adult Conservation Corps	62	20	20	−42
Land and Water Conservation Fund	74	47	?	−74
Other Programs	74	69	65	−9
Total, Allocated Funds	231	157	85	−146
Reduction to regular funds from previous proposal				−74
Total Reduction—up to				−220

EXHIBIT X

Research
New and Emerging Technology

Timber Management: Loblolly Pine Growth

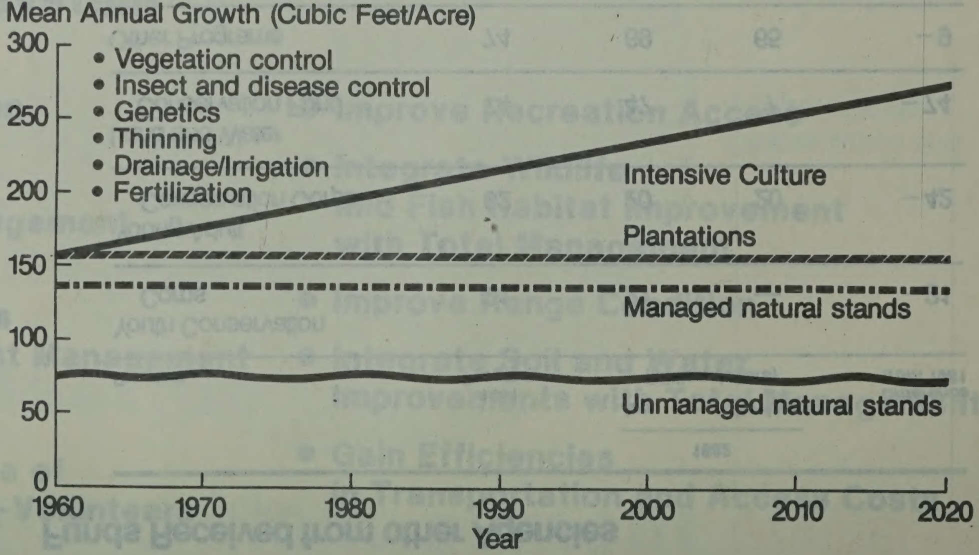


EXHIBIT Y

TIMBER MANAGEMENT RESEARCH

Estimated Average Annual Growth 1/ 2/
--Cubic Feet/Acre--

Species	1952	1962	1970	1977
Loblolly Pine	43	53	66	75
Douglas-fir	44	55	65	75
Sitka Spruce (Spruce/Hemlock type)	65	82	97	112
Ponderosa Pine	20	25	27	26
White Fir	32	36	51	55
Red Pine	15	19	22	26
Mixed Oak	15	17	21	24
Other Eastern Hardwoods	17	18	23	25

1/ Estimates based on: An Analysis of the Timber Situation in the United States 1952-2030, USDA Forest Service, Review Draft

2/ Based on Commercial Forest Acreage regardless of stocking.

EXHIBIT Z

Research
New and Emerging Technology

Timber Management: Softwood Growth

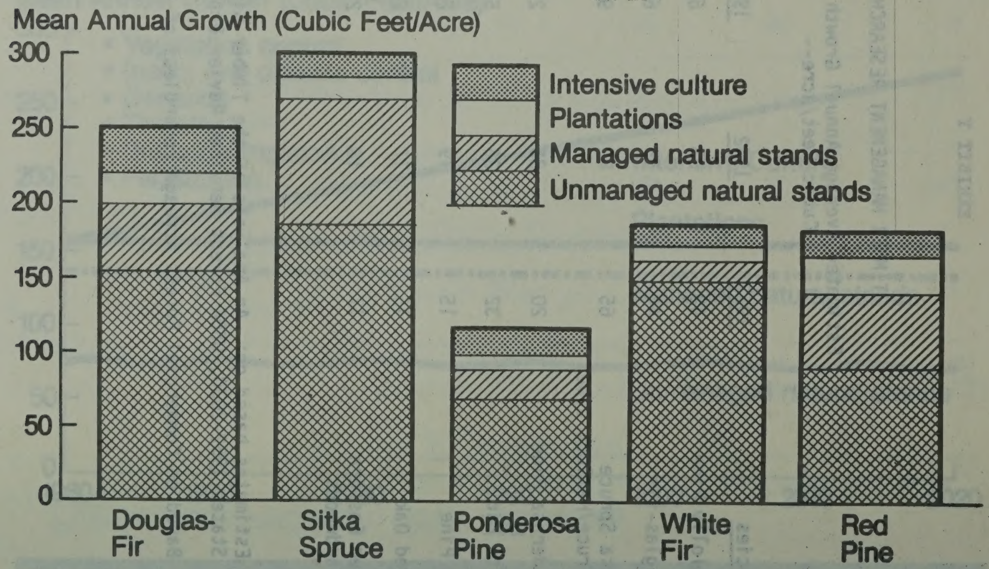
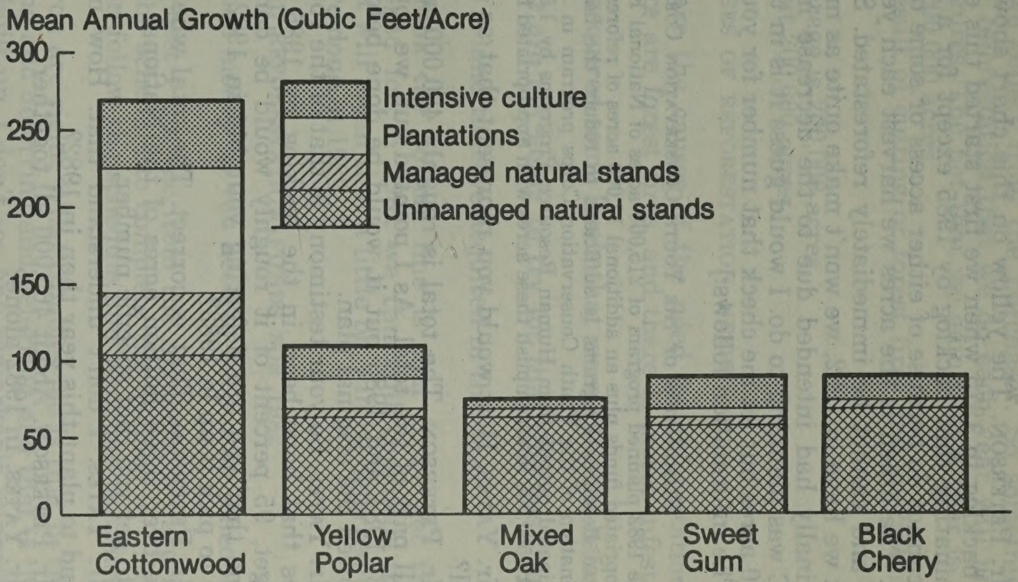


EXHIBIT AA

Research
New and Emerging Technology

Timber Management: Hardwood Growth



REFORESTATION NEEDS CHART

Mr. PETERSON. The yellow on this chart shows the beginning of the backlog in 1975 when we first started this effort and shows us eliminating that backlog by 1985 except for a small amount that we cannot do because of either access or some other physical problem. The green is the acres we harvest each year or that burn in fire and cannot be immediately reforestated. So with the budget that we have in 1982, we won't make quite as much progress as we originally had intended due to the decrease in the amount that YCC was planning to do. I would guess it is in the neighborhood of 5,000 acres but let me check that number for you.

[The information follows:]

ELIMINATION OF THE YOUTH CONSERVATION CORPS PROGRAM

The 1982 planned program of 215,000 acres of National Forest System land with appropriated funds plus an additional 12,000 acres of reforestation anticipated from Human Resource Programs is sufficient to reduce the backlog on schedule. The elimination of the Youth Conservation Corps program in 1982 would reduce that anticipated output from Human Resource Programs by 1,600 acres. It would cost about $560,000 to accomplish these acres with appropriated funds.

Mr. YATES. How would you represent that as a percentage of the total?

Mr. PETERSON. The total is roughly 450,000 acres so it is a very small part of the total. As I pointed out, we could pick that up in 1983, 1984 and 1985 but it would be done before that date if we followed the original plan.

Mr. YATES. So your testimony is that of the roughly 500 thousand acres that have been in the backlog by 1985 under the current budget, 95 percent of it roughly would be done within the time frame that you are deferring your bid in 1982 and you might be able to pick it up in 1983?

Mr. PETERSON. That is correct. The total when we started was a little over three million acres of the National Forest and we will try to get you that specific number.

Mr. YATES. I don't understand that. How many acres do you intend to plant this year then in 1982?

Mr. PETERSON. About 465,000 all together.

Mr. YATES. In 1982 alone?

Mr. PETERSON. Yes.

Mr. YATES. You told us that your remaining backlog was 450,000 acres. Maybe I misunderstood you.

Mr. PETERSON. No.

Mr. YATES. What is the remaining acreage in your backlog?

Mr. PETERSON. I think it is about 1.3 million acres.

Mr. YATES. Do you mean 1981 included or starting with 1982?

Mr. PETERSON. That is when we start with 1982.

Mr. YATES. You have 1.3 million and you divide that by five.

Mr. PETERSON. Now wait a minute.

Mr. YATES. Or don't you divide by five?

Mr. PETERSON. The problem here is it is a little bit like your checkbook when we are doing reforestation.

Mr. YATES. I'm not using my checkbook.

Mr. PETERSON. We are reforesting each year but we are also harvesting new areas that add to it so this 465,000 that I gave you includes both what we do with appropriated money as well as what we do with money we collect from the purchaser. So something over 200,000 acres of reforestation that we do each year will just offset new harvest figures. The net that we gained in a year is in the neighborhood of 200,000 acres.

Mr. YATES. As a result of cutting or forest fires and everything else, is that right?

Mr. PETERSON. Yes.

Mr. YATES. The average is 200,000 acres.

Mr. PETERSON. About 200,000 acres.

CAUSES OF REFORESTATION NEEDS

Mr. YATES. What are the causes of the need for reforestation? There is cutting, there are forest fires, and there is insect infestation.

Mr. PETERSON. We acquired some lands that were cut over before we acquired them.

Mr. YATES. But you are not going to try for that this year, are you?

Mr. PETERSON. This is land that we acquired in the past.

Mr. YATES. I see.

Mr. PETERSON. I think the bottom line is that if we get the program we have asked for in 1982 we can still complete the backlog by 1985, but it will mean that a little bit will be deferred to 1983 which would have done in 1982.

ADDITIONAL REFORESTATION FUNDS FOR 1982

Mr. YATES. How much money do you need to keep it on schedule for 1982?

Mr. PETERSON. The best I can see from the numbers, we are in fact close enough to the schedule to complete the backlog by 1985. In other words, we can follow the schedule and complete the backlog by 1985.

Mr. YATES. I hope you are right. What troubles me is that in the past you were deferring and deferring and deferring and that is the way the backlog was built up. I don't see any remarkable improvements in this budget even with all the cuts that won't be confronting us next year again. Next year you may be coming in and saying we want to defer again.

Mr. PETERSON. No, we have had a pretty high level of commitment completing this job in 1985.

Mr. YATES. What does that mean, that you had a high level of commitment from the Secretary of Agriculture or the President?

Mr. PETERSON. I think all the way up the line we have had a good level of commitment to complete this job by 1985.

Mr. YATES. Good.

Mr. PETERSON. So at least it would be my belief that we would be likely to get money needed in 1983.

Mr. YATES. You have not answered my question. How much money would you need over what you have allowed in your budget in order not to have it reoccur?

REFORESTATION AND HUMAN RESOURCE PROGRAMS

Mr. PETERSON. That is the part that we did plan to do with YCC that we are not now planning to do.

Mr. YATES. That is 1,600,000 acres according to Table 2-C in the Human Resource Program section of your justification, the second column under Reforestations under YCC.

Mr. PETERSON. No. That is 1,600 acres.

Mr. YATES. All right, 1,600 acres. How much money is represented by that?

Mr. PETERSON. I think it is about a half a million dollars.

Mr. YATES. Five hundred thousand dollars, is that all?

Mr. PETERSON. Yes.

Mr. YATES. Has the cost of reforestation been deferred?

Mr. PETERSON. That is just the part that YCC would have done, yes.

Mr. YATES. If I understand your testimony correctly, what you are saying is except for the work that the YCC would have done, all other reforestation in your program will go ahead and all the acreage except 1,600 acres will be reforested. Is that what you are saying?

Mr. PETERSON. Yes, sir. That was the original plan.

Mr. YATES. How many acres will you be reforesting then?

Mr. PETERSON. About 465,000 acres all together.

Mr. YATES. This year?

Mr. PETERSON. 1982.

Mr. YATES. Minus 1,600 more or less?

Mr. PETERSON. It is a very small number. That is the reason I say I think we can do it in 1983, 1984 and 1985.

Mr. YATES. Did YACC do any of your reforestation?

Mr. PETERSON. Yes, there were about 7,000 acres of YACC.

Mr. YATES. So that is 1,600 plus 7,000.

Mr. PETERSON. But we asked for additional money to do the work that YACC would have done.

Mr. YATES. Is that in the budget?

Mr. PETERSON. That is in the budget.

Mr. YATES. So that is covered.

Mr. PETERSON. Right.

What I would like to do, Mr. Chairman, with your permission would be to give you an overview of the budget that might help answer some of your questions.

Mr. YATES. I just want to try to absorb what you said about reforestation for about a minute if I may.

TOTAL REFORESTATION NEEDS

You have 1.3 million acres in your backlog through 1985 for reforestation. As I understand it that includes your estimates as well as for additional acres that will have to be reforested because of the need through either cutting or insects or burning, is that right?

Mr. PETERSON. No, not quite.

Mr. YATES. All right.

Mr. PETERSON. The 1.3 million acres represents our best estimate of the numbers going into 1982.

Mr. YATES. Into 1982.

Mr. PETERSON. Into 1982, right.

Mr. YATES. Your best estimate of the numbers of what the backlog will be going into 1982. What will that backlog be, do you estimate, through 1985?

FUTURE REFORESTATION NEEDS

Mr. PETERSON. When we get down to 1985 we will have reduced the backlog to about 205,000 acres. A total of a million acres will be in need of reforestation, but only 205,000 acres of that will be original backlog. The other is the amount of current needs for that particular year.

Mr. YATES. Then you are saying that there is no end to the backlog if I understand what you are saying.

Mr. PETERSON. We will eventually remove that 205,000 acres in access that is unavailable.

Mr. YATES. You are going to take care of the original backlog but you will still have another backlog.

Mr. PETERSON. We expect that what we call current needs will be covered by deposits for timber sale activity. The only thing that we will have in the way of recurring needs after we eliminate that original backlog would be the result of recent fires or the result of some other act of God.

Mr. YATES. And you estimate that will be about a million acres?

Mr. PETERSON. We think about a million acres. At the end of any one year we will have about a million acres that we need to turn over during that year, most of which we will be able to do with the deposit of money from timber sales when we get to 1985. In other words, we are never going to get out of reforestation.

Mr. YATES. Is it a million acres a year?

Mr. PETERSON. By the time we get to 1985 we will have about a million acres per year all together of land that we will need to reforest.

Mr. YATES. I am not sure I understand this. Let's take 1981. You are going to reforest 365,000 acres this year which will leave going into 1982 how many acres that will be in your reforestation backlog, not in our backlog but the total backlog?

Mr. PETERSON. 1.3 million.

Mr. YATES. 1.3 million.

Mr. PETERSON. Right.

Mr. YATES. Then in 1982 you will work on another 465,000 acres approximately, if I understand your procedure, which will leave about three-quarters of a million acres carried over to 1983 plus whatever additions to the backlog there might be, right?

Mr. PETERSON. That is right.

Mr. YATES. Which may be even more than 1.3 million.

Mr. PETERSON. Well, we are using historical numbers when we are saying backlog.

Mr. YATES. I am just trying to understand what the numbers are.

REFORESTATION CYCLE

Mr. PETERSON. Let me use 1982 as an example. We expect to add about 400,000 acres of new need.

Mr. YATES. I think I am beginning to understand how that chart operates now. The yellow is the treatment accorded to the backlog that the committee appropriated funds for.

Mr. PETERSON. Right, and that green is what we add each year.

Mr. YATES. So there is no eliminating the green, is there?

Mr. PETERSON. No, the green is what will always be there and about a million acres of that is about what we think will be the normal turnover.

Mr. YATES. Annually?

Mr. PETERSON. That is about the total we will have on hand at one time. We cannot eliminate all of that in one year. We may only do 600,000 or 700,000 acres of that million acres in one year.

Mr. YATES. What is the most acreage you ever report in one year?

Mr. PETERSON. I think this last year, according to our records, it was about 434,000 acres.

REFORESTATION FUNDING

Mr. YATES. If that is your record, how are you going to reforest 465,000 acres with less money?

Mr. PETERSON. We are not. We don't have less money.

Mr. YATES. You have the same amount of money?

Mr. PETERSON. We have an increase of ——

Mr. YATES. You have $12 million more.

Mr. PETERSON. That is right, we have $12,195,000 more.

CARRY-OVER REFORESTATION

Mr. YATES. I don't know that this member of the committee ever fully understood what this reforestation process was. I thought we were eliminating the reforestation backlog and we were just not doing that. What we are doing is eliminating part of the reforestation backlog over the years and it just continues to go on and on and on. Is there any process that you can have that would eliminate the backlog entirely as of a particular year?

Mr. PETERSON. Well, it depends on what the definition of backlog is.

Mr. YATES. And also what the reforestation is.

Mr. PETERSON. Any year that harvesting occurs you have to reforest those acres either that year or the following year. We will always have land that needs reforestation. We will do most of that with deposited money by timber purchasers but we are going to be reforesting just as long as we manage forest land and that is what the green is.

Mr. YATES. The question that comes to my mind is how are we doing a good job in forest resource husbandry if we allow a million acre backlog from year to year? Should we not be attacking that backlog so that instead of carrying over a million acres a year you have less than that or is that an impossibility?

Mr. PETERSON. We think that somewhere between 700,000 acres and a million acres is probably about what would be a normal carryover from year to year.

Mr. YATES. That is the normal carryover. The question is whether we ought to be carrying over less than a million acres a year by putting additional funds in it to reforest on it much more quickly.

Mr. PETERSON. No. The control there is not on dollars. It is the physical capability of planting after harvesting that year. You may be harvesting in the spring, summer and fall.

Mr. YATES. You are saying there has to be a period of time go by.

Mr. PETERSON. That is right.

Mr. YATES. You cannot plant immediately.

Mr. PETERSON. In many places you may have site preparation work to do after the harvesting has taken place. We try to reforest as soon as possible after harvest.

Mr. YATES. Now is this what the private companies do, too?

Mr. PETERSON. Yes.

Mr. YATES. I see the ads on television that show the forest ranger planting trees immediately after the trees are cut down.

Mr. PETERSON. Yes, sir.

Mr. YATES. Is he waiting at least a year before he goes in again?

Mr. PETERSON. It depends entirely on the part of the country you are in and what kind of species you are cutting and so forth but I would say yes.

Mr. YATES. I am trying to get you to educate me in this process. I am trying to carry out what I thought was the committee's intention in 1975 and that is getting rid of the backlog but we can see this green is growing every year. The part that is taken care of goes down but the part that needs to be taken care of increases. Is my interpretation correct? Apparently I am wrong.

Mr. RICE. May I speak a moment?

Mr. YATES. Sure.

Mr. RICE. Mr. Chairman, the green has not changed much really since 1979. This is basically the amount on the new cut-over areas that is going to be retained over a year-to-year basis. Consequently, this display looks like it is going down, it is the old backlog figures coming down as was originally agreed to.

Mr. YATES. I see, and that is what Mr. Peterson refers to as a normal backlog.

Mr. PETERSON. That is right.

Mr. YATES. You are telling the committee that apparently in the interests of good harvesting and good husbandry of our forests there is nothing you can do about keeping a million acre backlog.

Mr. PETERSON. Somewhere between 700,000 and a million acres is our best judgment.

PRIVATE REFORESTATION VS. GOVERNMENT REFORESTATION

Mr. YATES. Do private companies do this, too?

Mr. PETERSON. Yes they keep a backlog but some of the private companies are doing what we are trying to do particularly in the South and that is to reforest the same year.

Mr. YATES. You are talking about the loblolly pine?

Mr. PETERSON. Yes. Particularly in the West you may have only one or two opportunities per year that you can put the trees in the ground.

Mr. YATES. I know that. I can appreciate that.

Mr. PETERSON. Therefore, there is some harvested area not reforested each year.

Mr. YATES. I want to be sure that you are operating in a way that will stop the foresters from saying on the television programs and the radio programs that lack of funds prevents the Forest Service from doing the kind of reforestation that they ought to be doing. Now I had the impression that the committee was giving you all the money you needed to carry on your reforestation programs and still you hear those comments that are going out. You tell us this is what the private companies are doing as well and this is normally operating procedure, whether you are a public owner or whether you are a private owner, is this correct?

Mr. PETERSON. That is basically correct, yes, sir.

Mr. Leisz has joined us, the Associate Chief.

BACKLOG AS RELATED TO CURRENT REFORESTATION

Mr. LEISZ. Mr. Chairman, if I can make a comment here, I think one of the difficulties is the green area up there should not be considered as backlog.

Mr. YATES. That is what you call it up there though.

Mr. LEISZ. Well, we call it reforestation needs.

Mr. PETERSON. Current remaining we call it.

Mr. YATES. What is current remaining?

Mr. LEISZ. What happens each year is that additional acres are cut and as soon as they are cut that area would be added to the green area, but the reforestation cannot be scheduled until the operation is complete and the slash is disposed of but we show the acres there.

Mr. YATES. As you should.

Mr. LEISZ. The only alarm would come if we were not able to reforest that area shown in green when funds are collected from the timber sale activity and/or the reforestation fails.

COSTS OF REFORESTATION

Mr. YATES. Are the costs of your reforestation going up?

Mr. LEISZ. Yes, sir, they are.

Mr. YATES. Do you intend to tell us what those are later?

Mr. PETERSON. Yes, they are in our notes.

Mr. YATES. Are there any questions about this before we go to Mr. Peterson's presentation?

Mr. MURTHA. I have no questions.

Mr. AUCOIN. I have no questions on this.

Mr. YATES. Mr. Peterson, if you want to proceed in another way, you may proceed.

HOUSING TRENDS—EXHIBIT B

Mr. PETERSON. Mr. Chairman, we thought it might be helpful if we went through the development of our budget, including what the recent assessment, the Resource Planning Act long-term assessment, showed to be the future needs of the country. One of the basic things that drives the need for forest products, of course, is housing and you will notice this chart that goes up and down so much reflects the change in cost of money. If you take out the rapid ups and downs and even it out, you see that during the late 1980s we have the peak demand for housing in the United States which is related to house hold formations of youngsters born after World War II. That is an important element of looking at what the needs are in the next few years so we turn to this basic chart.

GROSS NATIONAL PRODUCT

The gross national product which is important in looking at per capita income and what people may do in the future shows low, medium and high projection but shows an almost doubling of the gross national product by the year 2030 in the country as a whole.

Mr. YATES. What is the basis for those calculations?

Mr. PETERSON. The Bureau of Economic Analysis of the Department of Commerce.

POPULATION PROJECTIONS

Mr. YATES. This is the population projected and you will notice that we have low, medium and high level projections. A substantial increase in population even at the low level and this population projection does not count in-flow from immigration into the United States so it may be low. This projects a substantial increase in population which will put pressure on a constant, somewhat shrinking forest land base.

Mr. MURTHA. Do you count illegal aliens?

Mr. PETERSON. We show anybody that shows up on the census. This is from the Bureau of the Census.

Mr. MURTHA. Anyone who shows up on the census, you count them.

Mr. PETERSON. Nobody knows how to project that in-flow.

Mr. MURTHA. You have a history of the census.

Mr. PETERSON. We have a history of the census but it is higher in the Seventies, for example, than it was before that and we are not sure how to project that.

Mr. MURTHA. Does it or doesn't it show on the projection?

Mr. PETERSON. This is the best estimate of the Bureau of the Census, yes.

Mr. MURTHA. Are you saying you don't know if they counted illegal aliens in the projection?

Mr. PETERSON. That is right. As far as I know they do not because they just count total number of people.

LUMBER CONSUMPTION

If we project this into demands for various products from the forest, you can see the projected need for lumber consumption with the green line being the total projection. The red line shows softwoods, the blue line shows hardwoods. One of the features of this chart that is important, is the indication that hardwoods will play a larger role in the outyears, particularly after 1990. There is a continuing high demand for softwood which is related to the housing market so there will be a high demand to the year 2030 for both hardwood and softwood.

Mr. YATES. What is going to happen to the red and green lines during the early 1980s?

Mr. PETERSON. We have not shown those in the early 1980s because if you look back, you can see the housing market change which makes those wavy lines behind. That is what we see in 1981 and 1982. It is not quite clear just when the housing market will pick up.

Mr. YATES. As of now those lines are going to go down, aren't they?

Mr. PETERSON. As of today, those lines are down, yes, because the housing market is down.

Mr. YATES. If those lines are down, does that mean you reduce the amount of your cuts?

Mr. PETERSON. The level of harvest goes down when the line goes down, Mr. Chairman, but I would consider it a serious mistake to reduce the timber sales program to reflect that. If you remember, we did that in the early 1970s and then the housing demand started to pick up. We tried to make sales to catch up with it and we never were able to because the response time is too long. If you start to prepare sales and sell them, get the roads built, get to the logs and get them from the lumber mill to the market, you just can't get through that pipeline in a short period of time. The better strategy is to have a substantial amount of timber under contract so that you may immediately harvest it and the market can pick it up.

CUTBACKS AND THE TIMBER PROGRAM

Mr. YATES. I have the impression the Administration is recommending a cutback in your program then, is it?

Mr. PETERSON. Not in the timber sale program, no, sir. The timber sale program is held at the same level as the previous budget, 11.9 billion board feet.

Mr. YATES. Eleven point nine billion.

Mr. PETERSON. Yes.

Mr. YATES. I thought that Mr. Duncan advocated 12.2 billion.

Mr. PETERSON. Yes. That was last year's appropriation level.

Mr. YATES. Do you think that ought to be continued?

Mr. PETERSON. Well, my feeling would be we ought to go at least to 11.9 billion. We have 300 million that was prepared last year that we could offer next year.

Mr. YATES. Last year's Conference Report stated this. The managers are in agreement on the following: Included the increase above the amount provided by the Senate for the national forest system and construction and land acquisition is $29,700,000 to prepare for sale in fiscal year 1981, an additional 300 million board feet of timber to be offered for sale in fiscal year 1982.

The Administration does not propose to follow that recommendation, does it?

Mr. PETERSON. I think it depends on what happens to the markets. If the markets pick up, we very well might sell that in 1982.

Mr. YATES. When are you going to know that?

Mr. PETERSON. We will probably have a much better feel of that about this time next year.

Mr. YATES. What do we do at the present time? Do we follow the Administration's recommendation?

Mr. PETERSON. At the present time we recommend you go with 11.9 billion feet.

Mr. YATES. Do you want to ask a question, Mr. AuCoin?

Mr. AUCOIN. Mr. Chairman, I have several questions on timber sales but I will wait until the appropriate time.

Mr. YATES. All right.

PLYWOOD CONSUMPTION—EXHIBIT C

Mr. PETERSON. This shows a similar chart for plywood consumption with high demand for plywood consumption going out to the year 2030 with some increase in hardwood used for plywood.

GRAZING DEMANDS—EXHIBIT D

One of the more interesting charts is this one on grazing demand. This covers, Mr. Chairman, all the lands, not just National Forests. It shows a fairly rapid increase in grazing demand, particularly between now and the year 2000 because grazing is relatively energy efficient. The demand for red meat and the energy efficiency of grazing means that people are trying to use more forage with animals rather than moving them to feedlots.

NATIONAL FOREST SYSTEM GRAZING LAND

Mr. YATES. How much grazing land do you have?

Mr. PETERSON. We have about five percent of the United States grazing land in the National Forests.

Mr. YATES. How many acres?

Mr. PETERSON. We graze one way or the other between 90 and 100 million acres. Some of it does not have very heavy stocking on it.

Mr. YATES. Because of the poor quality of the land?

Mr. PETERSON. Because of the poor quality of the land.

Mr. YATES. Are you rehabilitating that land?

Mr. PETERSON. Yes, we are where it would make sense to do so.

Mr. YATES. Do you have any good land?

Mr. PETERSON. Yes, we have some good land.

Mr. YATES. Do you have any excellent land?

Mr. PETERSON. We have a little bit of excellent land, yes, sir.

GRAZING FEES

Mr. YATES. What do you charge for your excellent land?

Mr. PETERSON. We charge on the basis of animal unit months.

Mr. YATES. What do you get for it?

Mr. PETERSON. We get $2.31 for the national forest portion of that and $3.51 on the average for the national grasslands.

Mr. YATES. How does that compare with the amount received by private ownership?

Mr. PETERSON. We are completing a comparative study between the type of lands. We expect to complete that study in May of this year and we will have better numbers. Right now we simply don't have good comparative numbers.

Mr. YATES. Can you tell us what private owners are getting on good lands?

Mr. Leisz. There is a range, Mr. Chairman. Some is above what they charge in the States and some is below.

Mr. Yates. When BLM was in before us they said the private owners were getting as much as $20.

Mr. Peterson. I think the difficulty in making those comparisons is that if you graze on private land, many times it is fenced so you do not have a herding problem. There is a lot of difference.

Mr. Yates. I know, but suppose you built a fence. You still would charge $2.30 because unfortunately the Congress requires you to do it.

Mr. Peterson. There is a formula specified at the present time.

Mr. Yates. You cannot get by that grazing land.

The next chart.

OUTDOOR RECREATION—EXHIBIT E

Mr. Peterson. This shows the projected increase in recreation demand with snow and ice being the most rapidly increasing form of recreation followed by water and then land. Since the absolute amount of recreation is greater on land than the other two, the total numbers are actually higher. This just shows you a percentage comparison of where the need is for facilities and so on. The national forests, as I am sure you recognize, produce about 40 percent of the total outdoor recreation in the United States, about four times more than any other Federal agency.

SUPPLY AND DEMAND FOR RENEWABLE RESOURCES PRODUCTS—EXHIBITS F AND G

If you summarized all that we have shown you before, the red line shows demand, the green line supply, you can see that demand for the renewable resources of forest and rangelands is increasing faster than supply. Now of course in the real world this can't happen. In the real world what will happen is that prices will increase to close the supply and demand gap. As prices close that gap this is one of the things that pushes inflation, that kind of gap between supply and demand. We will show you a chart here showing some of the implications of that particular chart.

Can you see that all right?

CONDITION OF GRAZING LAND

Mr. Yates. I can see that fine, except I want to go back to grazing for just a minute and find out whether you have graded your land by poor, good, better than good and excellent as far as grazing.

Mr. Peterson. You mean condition of the land? You are talking about how good it is for grazing?

Mr. Yates. Yes.

Mr. Peterson. Of course, we have a condition class in which we say the land is in good, poor or satisfactory condition. That is kind of grading the land.

Mr. Yates. Do you have it distributed by acres?

Mr. Peterson. We have that by acres but I don't have it with me.

Mr. Yates. Would you provide that for the record, please?

Mr. PETERSON. Yes.

[The information follows:]

RANGE CONDITION SUITABLE FOR GRAZING BY LIVESTOCK

Condition	Thousand acres	Percent
Good	13.1	24
Fair	25.0	46
Poor	14.2	26
Very poor	2.1	4
Total	54.4	100

FOREST SERVICE VERSUS PRIVATE GRAZING

Mr. YATES. The reason I ask the question is if you operated your land in the same way as the private land owner would, I wonder how much more money would accrue to the people of the United States.

Mr. PETERSON. Mr. Chairman, one of the features of National Forest grazing that I think is different than others is that ours is highly seasonal and it is generally tied into ranch use for the rest of the year. It represents five percent of the grazing land. As I remember the figures, there is about 25 percent of the animals in the West at one time or other graze on these lands so they are quite valuable for that short period of time. However, they do require the hauling of livestock, driving them in and out, and also a considerable amount of herding while they are there so they don't overuse an area.

Mr. YATES. That would be applicable if the lands were owned by a private person, too. The only condition that I would like to have you address is what would the return be under comparable conditions? Under comparable conditions the private owner who owned the land would be subjected to the same thing you are talking about.

Mr. PETERSON. Let me point out that there is very little privately owned range land of the kind that we have. Most of the privately owned range land that we are looking at is in the valley and it is more likely to have higher carrying capacity per acre. There is very little comparative private grazing land that is leased out that gives us numbers to work with and that is one of the real problems we are looking at now in this comparative data.

SUMMARY CHART

Mr. PETERSON. Since you can read that better than I can, I will let you read it.

Mr. YATES. All right.

Mr. AUCOIN. Mr. Chairman.

Mr. YATES. Mr. AuCoin.

300 MMBF PREPARED IN 1981 FOR SALE IN 1982

Mr. AuCoin. I am reading the chart, too, and given the points that you have listed on the chart some pretty dire facts are listed there. I would return to the Chairman's question about the 300 million board feet that were contemplated with the Duncan amendment last year. The fact that that has not apparently been used does not seem to be consistent with the problems that you have outlined on the chart here.

Mr. Peterson. I think if the demand continues high next year we will very likely come back and ask that we offer that for sale. The problem we have is when we offer it for sale we technically obligate additional money for purchaser credit and at that point in time it is an outlay, an obligation.,

Mr. AuCoin. Whose money is that?

Mr. Peterson. Well, technically it shows up as an appropriation even though it is an offset against stumpage price literally.

Mr. AuCoin. What is the problem then?

Mr. Peterson. If the market picks up and it looks like it would be good business to sell we are prepared to come back and ask to do that for 1982.

Mr. AuCoin. But why not now?

Mr. Peterson. It was our feeling that the right time to sell is when the market starts to pick up to try to take a little bit of edge off of inflation that would normally accompany it, but you make a good point.

Mr. AuCoin. The money under the Duncan amendment was appropriated for fiscal year 1981.

Mr. Peterson. No, just the work to prepare the sales, not the actual offer which obligates roads and other kinds of obligations. So the money to actually offer for sale was not appropriated in 1981.

TIMBER UNDER CONTRACT

Mr. Yates. Isn't there another fact that has to be brought into this and isn't that the number of uncut lumber?

Mr. Peterson. Amount of timber under contract. That is a figure that a lot of people use, it is about 30.5 billion board feet right now and it is up from almost 27 billion in 1976. Mr. Chairman, I would suggest to you that it is a good idea to have that much under contract for several reasons. One is that it gives an opportunity for a fast response when the housing market speeds up. Also, a reasonable amount of timber under contract is important when companies want to borrow money to update their plant to make it more efficient and to do other kinds of things that they need money for. It allows a more orderly planning of the road system. Actually it is good business for both the industry and for the companies to have a reasonable amount under contract and I would consider 30 billion board feet not at all excessive. In fact, you can make quite a case that it probably ought to be at least 35 billion.

Mr. Yates. Why is that?

PREPARING FOR INCREASED HOUSING DEMANDS

Mr. Peterson. If we are right in seeing this housing upswing in the next couple years, the demographics show this high housing demand in the mid 1980's. If we are going to get that high housing demand in the mid 1980's, we have to have the timber sold in 1982 or 1983 in order that they can get at it and meet that housing demand.

Mr. YATES. What are you going to do about the high interest rates?

Mr. PETERSON. Well, I am sorry that I don't have the answers to high interest rates, but when the interest rates do come down the demand for housing will be there.

Mr. YATES. I don't think there is any question about it.

Mr. PETERSON. I think it would be a great mistake if we do not prepare now. We would be up here before your committee; when housing took an upswing, everybody would be saying, "what can you do to help this." We would have to say what we should have done was to do something a year ago to increase timber sales.

Mr. AUCOIN. Mr. Chairman.

Mr. YATES. Mr. AuCoin.

Mr. AUCOIN. What you are saying then is the 11.9 billion board feet figure that you are standing by is really a minimum and if the situation was ideal it ought to be a great deal more than that because you could justify any so-called backlog on the basis of having enough flexibility to meet future demand, is that correct?

Mr. PETERSON. That is a good summary.

SALVAGE BACKLOG

Mr. AUCOIN. How much of the current backlog is salvage?

Mr. PETERSON. Not very much of the current backlog is salvage. I would guess in the neighborhood of a billion feet because we have a requirement for prompt removal of salvage material and that is about what we sell in the year. It is generally removed within about a year.

Mr. AUCOIN. One billion out of the 30.5 billion.

Mr. PETERSON. Yes.

Mr. AUCOIN. Would you provide the precise figure for the committee?

Mr. PETERSON. We will try to do that, yes, sir.

[The information follows:]

VOLUME OF TIMBER UNDER CONTRACT

There are presently 30.495 billion board feet under contract, excluding long-term sales. Of this amount, less than 1.5 billion board feet is salvage material.

Mr. AUCOIN. I ask that question just to try to get an explanation or an understanding of the increase in the backlog over the last four years. It seems that it has been a fairly rapid increase. My figures indicate the backlog has increased by 1.8 billion board feet between 1979 and 1980. I thought perhaps the inflation of salvage was a major explanation for that.

Mr. PETERSON. I am advised now that the number on the salvage is about 1.3. I said about a billion. My best estimate is about 1.3. The main buildup is not in salvage. The main buildup is in general sales where there simply was no market to encourage somebody to cut and harvest that material and process it into lumber. There was no lumber market so they are holding the timber waiting for this upswing in housing.

Mr. **AuCoin**. Mr. Chairman, may I continue?
Mr. **Yates**. Sure.

300 MMBF PREPARED FOR SALE IN 1982

Mr. **AuCoin**. Going over again the agreement of the Conference Committee to make available 300 million board feet in fiscal year 1981, how much timber have you prepared with those funds so far in this fiscal year and what do you estimate the actual timber sales to be for 1981?

Mr. **Peterson**. I can't tell you how much we would have prepared of that 300 million thus far because we have only told the field to have that 300 million by the end of the year. We will plan to offer for sale 11.9 billion in 1981 and therefore we have the 300 million prepared but not offered at the end of the year.

I think you asked me, Mr. Chairman, what it would take to offer that for sale next year and the number is about $21.2 million.

Mr. **Yates**. That would be in addition to your budget figure.

Mr. **Peterson**. Yes, sir. If the market did upswing we could come back and advise you at that point that it would be a good idea to put this on the market.

TIMBER UNDER CONTRACT DUE TO "DESPERATION BIDDING"

Mr. **AuCoin**. Mr. Chairman, again dealing with the question of the backlog, I am interested in the problem of so-called speculation in bidding. There are a lot of reasons perhaps for backlog that have been mentioned but I am wondering to what extent speculation might come into this.

Mr. **Dicks**. Speculation or desperation?

Mr. **AuCoin**. Survival bidding if you want to call it that.

Mr. **Dicks**. Yes, survival bidding.

Mr. **AuCoin**. I am using it in quotes, "speculation" bidding. I am thinking about some of the smaller operations, such as mills that have to have a few sales under contract. It seems to me that if they are in that kind of a position, they are forced despite the circumstances, just to stay in business to bid up on the price of these sales. I am wondering if you can tell the committee in your own judgment whether or not you think this accounts for some of the timber sales backlog in the last year.

Mr. **Peterson**. I think, as you point out, that a company in an area of short supply would feel like it has to do almost anything to be able to get an inventory to work with. As one of my friends pointed out to me recently if you have a sawmill without any logs, it is not of much use to you. There is quite a bit of concern that the supply might not be there in the future for various reasons and so you get some desperation bidding as Congressman Dicks has indicated. When they look back over time and see the escalating log prices there is some feeling that if we don't buy it now it will be worse later and this has happened, I would say, because of several things.

There has been a decline in the supply of private timber, specifically in the Pacific Northwest. There has been some uncertainty about the dependability of the National Forest timber supply because of RARE II and budget levels and so on. Then there is a feeling that if you have the sale in the bank, so to speak, that you have the best of all worlds and that if you cannot operate it, you will find somebody that will. Quite frankly, it is not all that easy to define speculation. One of the people that I know said speculation is anybody that buys a Government timber sale today because he is betting on the future housing market, he is betting on a lot of things.

Mr. AuCoin. Betting on the solution to the RARE II problem and a whole range of things.

Mr. Peterson. Yes. I guess the bottom line on the best way to reduce speculation really is to provide a dependable and, if possible, rising supply. That is the best cure for speculation because you take away the incentive to speculate.

Mr. Dicks. Would you yield for a second?

Mr. AuCoin. Yes.

PARTIAL PAYMENTS ON TIMBER CONTRACTS

Mr. Dicks. Some people have suggested that, for example, in the State of Washington when someone gets a sale they have to make a down payment, a deposit, on that sale.

Mr. Peterson. Yes.

Mr. Dicks. It makes a substantial difference whether people are bidding on State sales or on Federal sales because Federal sales do not require a down payment or partial payment. Because of that people are willing to speculate, because they know that they have three years before they have to pay anything to the Federal Government. It is like playing the commodities market. The way the prices have gone up makes it possible, through the extension of time, to harvest those sales. Really it is a pretty good risk and some people are bidding a little higher than they would be if those kinds of rules were not in place.

Mr. Peterson. I think that is a factor. In fact, in the last six months we have been looking at a number of things we might do, including more front end payment.

Mr. Dicks. Do you think that is a good idea?

Mr. Peterson. I think it is but I am a little bit concerned about when we do it.

Mr. Dicks. It is easier to do it when things are improving.

Mr. Peterson. Yes. When interest rates are very high, some of those companies are barely hanging on by their toenails right now, and you come in and say we will sell this and makes sales for you but you are going to have to put up a lot of front end money.

Mr. Dicks. It might break them.

Mr. Peterson. I am not sure of the impact on the companies and it would be a lot better time to do that if you find when the market is better. I do think we are going to have to bite the bullet on that though. I think we will have to do something to either increase funding costs, maybe a schedule of payments that will have to be made whether people buy or not. There is a whole series of things like that that we have considered but none of them are painless and none of them just cure the speculator. They also affect nonspeculators who are just trying to buy enough to stay in business. We have not been smart enough yet to design anything that just refers to the speculators. We do have an analysis underway right now of this looking at a series of options. We will be making some judgment I would guess in the next 90 days or so.

EXTENSION OF TIMBER CONTRACTS

Mr. AuCoin. Have you considered a "no extension" policy?

Mr. Peterson. We basically have a "no extension" policy.

Let me point out the only time that we have allowed extensions was last year.

Mr. Dicks. I am not saying that is entirely bad, I believe there was some reason for that.

Mr. Peterson. Well, it was our feeling that here is the Government suddenly deciding to cure inflation which was a major problem all right, but the result was a dramatic increase in interest rates and an almost shutting down of the housing market. Had we held tight then, we would have broken a large number of firms in the West and then when housing starts picked up there would have been no industry to pick it up. It appeared to us to be in the public interest to make those extensions and that was in my view a definite exception to our general policy of extension.

Mr. AuCoin. On what other occasions have you had a period or a pattern of extensions?

Mr. Peterson. We have not had any since we adopted a tight extension policy several years ago. That is the only case where we have had extended sales.

I might point out that we have reappraised the sales that have been extended, so the company paid a higher price for those. They didn't get a free ride on that extension. We also have a policy that says a purchaser must have completed all the specified roads by the specified completion date and have removed 75 percent of the advertised volume before being eligible for an extension. So that is a pretty tight policy.

Mr. AuCoin. With that exception there is no real difference between the extension policy of the BLM and the Forest Service?

Mr. Peterson. That is true, although last year, because of BLM's cash flow problem on the O&C lands, they did not extend when we did. This allowed some companies that had sales on both to work through that. But they didn't extend primarily because of the cash flow problem on O&C lands.

BLM SALES COMPARISON

Mr. AuCoin. What is the comparison with BLM sales and Forest Service sales wth regard to length of time of the sales and the size of the sales? Are there any distinctions or contrasts there?

Mr. Peterson. Both of us have a basic policy of relating length to how much volume there is, how many roads are required and so on. We generally are following the same policy on length of sales, from one to seven years throughout the country with the average of three to five years in the West.

Mr. AuCoin. In practice aren't the BLM sales of shorter duration?

Mr. Peterson. They have a larger number of smaller sales which would make theirs short, and ours would be, too, for smaller sales.

Mr. AuCoin. Aren't theirs basically three years in duration?

Mr. PETERSON. Most of them, yes, three to five.

Mr. AuCOIN. Yours are basically what length?

Mr. PETERSON. Well, we have a lot of one year sales, mostly in the East though.

Mr. AuCOIN. Aren't most of them longer than three years?

Mr. PETERSON. The average length of sale for the Forest Service is three years.

Mr. AuCOIN. That is the average, including all the smaller ones?

Mr. PETERSON. Yes. I don't think there is any significance in the length of sales.

LUMBER COSTS AND HOUSING

Mr. AuCOIN. I want to return to the economic dynamics that are happening right now, Mr. Chairman, in terms of what that may do to lumber costs which will translate ultimately into higher housing costs.

Can you tell the committee what the increase in the stumpage values have been—or provide it for the committee's records if you cannot tell us now—in the last two or three years and contrast that with the lumber prices which have been moving in the opposite direction. I know that the stumpage values have been going up, lumber prices have been going down, and I cannot quantify that. If you can, it will be highly desirable. Then I want to get to the significance of those two facts.

Mr. PETERSON. In the last 10 years, Douglas fir on the West side, for example, stumpage prices have gone up about tenfold. They have gone from something around $40 a thousand board feet to almost $400 last year, I think $350. They have fallen some recently. That was in 1979.

Mr. YATES. Why is that? Why did it go up so much?

Mr. PETERSON. Because of the shortage of that particular high quality commodity in the West. In other words, you simply did not have an adequate supply and you had companies that were bidding for the limited sales.

Mr. AuCOIN. Bidding on the shortage of supply.

Mr. PETERSON. They were bidding during a period of shortage of supply. So they just kept bidding it up.

Mr. YATES. What is so desirable about stumpage?

Mr. AuCOIN. That is the raw material.

Mr. DICKS. It does not mean just the stump, you are talking about the stand of the wood on the tree.

Mr. YATES. I see.

Mr. PETERSON. And we do have stump sales, too, particularly in the South.

Mr. YATES. That is what I thought you were talking about when you said stumpage.

Mr. PETERSON. Let me correct those figures on Douglas fir. Douglas fir went from $37 a thousand board feet, I said about $40, to $354 in 1979. That is between 1970 and 1979, so it is almost a tenfold increase.

Mr. DICKS. It has gone up a lot more than that since 1979, hasn't it?

Mr. PETERSON. It went down in 1980 and back up again.

Mr. DICKS. What are they selling for out there right now, $600?

Mr. PETERSON. Right now the bidding is completely unpredictable. Some is going as high as $600.

Mr. LEISZ. We had some sales up to $700.

Mr. AUCOIN. Now what has happened in the meantime over that same period of time up to today on lumber prices?

Mr. PETERSON. Take Douglas fir. Dimension lumber went from $93 in 1970 to $251 per thousand board feet in 1979.

Mr. YATES. For how much?

Mr. PETERSON. Per thousand board feet for Douglas fir, West side.

From $93 in 1970 for Douglas fir dimension lumber to $251 in 1979, so about a threefold increase.

Mr. AUCOIN. What has happened in the last year to lumber prices?

Mr. PETERSON. Lumber prices have gone from about $251 down to about $180.

Mr. AUCOIN. We see a continued trend but there has also been an explosion in prices or value of stumpage in the last 12 months and a substantial decrease in lumber prices.

This leads me to the question, as to what the Forest Service calculates the impact of the higher stumpage values will be once that raw material is milled and put on the market in the form of lumber. Can you make any kind of calculation?

Mr. PETERSON. Well, it is obvious.

Mr. AUCOIN. You are getting $600 and $700 bids right now. What is going to happen?

Mr. PETERSON. Well, the thing that worries us is that we do not see how those sales can be cut in the near future even if the housing market would swing up and the people buying those sales must be counting on continued inflation and cutting them near the end of the period. As Congressman Dicks pointed out, some of it is desperation buying, so a person that pays that much for it simply cannot sell lumber without getting more than the current price.

Mr. AUCOIN. Aren't we really confronted with the fact that if it can't be stopped, we are going to be left with a very large increase in lumber prices which is going to translate into higher housing costs? Isn't that true?

Mr. PETERSON. That is correct, yes, sir.

LIMIT TIMBER SALES

Mr. AUCOIN. And on that context does it really make sense to limit the timber sales in a smaller proportion than we could otherwise achieve? It seems to me if we contract the amount of timber that we can bid on by reducing our timber sales program that we are only intensifying that problem and inevitably causing this kind of impact to the consumer, is that not correct?

Mr. PETERSON. That is essentially correct. In the best of all worlds if we did not have such an immediate problem with Government outlays and so on, it would be desirable to have a higher timber sale level. It was our feeling that if we keep the 11.9 billion board feet in 1982 and the 300 million available, then try in out years to increase the level and let that be known as public policy. It might help some of this so-called desperation bidding. Some of that bidding is really because of uncertainty about the future.

Mr. Dicks. They want a supply. It is difficult to explain to people that if you don't have that backlog, when the increased demand comes then you have a real problem with the cost to the consumer and the price of housing. Our colleague from Oregon, Mr. Duncan, always pointed out that you are not serving yourself here by reducing sales, you are actually going to hurt yourself because when that demand comes it is going to make this situation worse.

Mr. Peterson. Well, the consumer, as you are pointing out, will ultimately pay more.

Mr. AuCoin. Let me just interrupt for a second.

Mr. Dicks. Sure.

Mr. AuCoin. What we have here then is a case where it is being suggested to the consumer that we are making a savings for him in his role as a Federal taxpayer by reducing a budget item but in terms of the ultimate cost he may have to pay in the marketplace for housing. We are really whacking him for coming in with a figure on timber sales that is contracted and that could accelerate economic dynamics by running up the price of lumber the consumer will have to pay.

Mr. Peterson. Right. I think it would really be a problem if we reduced the 11.9 down to some lower level because that would give exactly the wrong signal at a time when the inflation is already very high and we need to at least keep the same level as a bare minimum. Some of this is psychological in that the timber is not going to be there.

TIMBER EXPORTS/IMPORTS

Mr. Yates. May I strike an unharmonious note in this colloquy by reading what he said a couple months ago. He said:

> Some National Forest timber-harvesting contracts can be extended because of the slump in the lumber market, according to R. Max Peterson, Chief of the U.S. Department of Agriculture's Forest Service. Prices for all major sawtimber species are more than 20 percent below the levels of the last two years and it is impossible to predict the duration of the market slump.

Then I read from the Wall Street Journal of a few months ago.

> Japan asks U.S. lumber firms to reduce exports in further setback to the industry.
>
> The slumping U.S. lumber industry was dealt another blow as Japanese lumber dealers, in an apparent about-face, called for the United States and Canada to cut their lumber exports to Japan this year 50 percent.
>
> In U.S.-Japanese trade, the shoe usually is on the other foot, with American industries asking Japan to limit its exports of autos and other items to this country. But Japan cited an alarming rise in inventories and domestic prices that have plunged 15 percent below the cost of imports amid falling housing starts. The Japanese warned that many of their 43,000 lumber dealers will go bankrupt soon unless North American exports of finished lumber are swiftly and sharply curtailed.

How does this relate to what you fellows are talking about?

Mr. Dicks. We admit that the market is soft both internationally and at home right now but in my judgment it does not relate to what we should be doing in the Forest Service in order to show that there is going to be an adequate supply in the next few years so that these people don't continue to bid even more desperately, further driving up the price. It is a situation where some of these mills do not have an adequate supply themselves. They have to have these timber sales. They have to have a backlog that they can draw upon and so they go out and they bid a very high price.

This is something I would like to ask at this point, this has to become rational again at some point, doesn't it, in terms of just the economics. Won't the Canadians then come in and be able to substantially undercut the market in the United States if our people are bidding too high for this Forest Service timber?

Mr. YATES. Don't your bidders have to know that and realize that? You are not the only one who sees that possibility. Surely the people in the lumber business see that as a possibility also.

Mr. PETERSON. The Canadians are selling major amounts of lumber and other products in the United States, particularly in the East where it is cheaper than bringing it from the West.

Mr. AUCOIN. Let me ask this on that point.

Mr. YATES. You better let him finish his answer first.

Mr. PETERSON. Canada will supply a substantial part of the eastern market, particularly if stumpage continues very high.

I was going to point out the situation in the Pacific Northwest. There is a large installed capacity of existing facilities and so, as I mentioned earlier, the only thing worse than not having a plant is having a plant without logs.

Mr. YATES. Kind of like Chrysler, isn't it?

Mr. PETERSON. Well, we are not talking about a subsidy. We are talking about an availability of material for which they are paying a very high price at the present time.

Mr. YATES. Isn't that a gamble as to what will happen to the housing market as Mr. Dicks points out?

Mr. PETERSON. Sure, but look at the alternatives. If you don't have logs for your mills, you know you are going to close them down and so this is an attempt to stay in the ball game.

Mr. YATES. What happens to the small sawmill?

SET-ASIDE PROGRAM

Mr. PETERSON. Well, we have a Small Business Administration set-aside program which provides a percentage for small businesses. There is active competition within those small businesses for the material.

Mr. YATES. Who is the new Assistant Secretary proposed for that program?

Mr. PETERSON. Excuse me.

Mr. YATES. What about Mr. Crowell?

Mr. PETERSON. Mr. Crowell is over in his confirmation hearings on the Senate side this morning.

Mr. YATES. He is not enthusiastic about that program?

Mr. PETERSON. He has said in writing that he will abstain from any decisions involving the Small Business set-aside program.

Mr. YATES. Was there a suit to stop the program?

Mr. PETERSON. There was a suit to modify the program which did not succeed. The program is still in place.

ASSISTANT SECRETARY-DESIGNATE

Mr. YATES. I will read from the New York Times of March 29:

> The Department of Agriculture appointment that has caused the greatest controversy is that of John B. Crowell, Jr., as Assistant Secretary for national resources and the environment. Mr. Crowell, an Oregon lawyer and timber lobbyist, previous-

ly worked for the Louisiana-Pacific Company, one of the Nation's largest users of National Forest timber.

In last year's presidential campaign Mr. Crowell was a vociferous critic of the Forest Service, which is now under his supervision.

We don't agree with him on this nor on his criticisms of the Forest Service, said Richard D. Pardo, Program Director of the American Forestry Association, a public interest group. Our biggest fear is that Mr. Crowell will join the Office of Management and Budget in giving all Forest Service funds to timber cutting and ignoring other obligations, like wildlife habitat protection and grazing land protection.

Are you going to protect the wildlife habitats?

Mr. PETERSON. Yes, sir.

Mr. YATES. And are you going to protect the grazing lands?

Mr. PETERSON. Yes, sir.

Mr. YATES. Even though Mr. Crowell is liable to come in?

Mr. PETERSON. I have known John Crowell for about 15 years and I do not think that is an accurate portrayal of his position.

Mr. YATES. What is his position?

Mr. PETERSON. As I mentioned, I have known John for 15 years and he is trained in law, he knows the laws that relate to the National Forest, he knows what the National Forest provides in the way of recreation, wildlife and so on. The discussions that I have had with him so far would indicate that he is very much aware of those other responsibilities. Among other things, he is an amateur bird watcher, so he is not unaware of the other values of the forest.

Mr. YATES. What was his celebrated speech? According to this:

> The celebrated speech, widely circulated here and across the country by environmentalists, critized Forest Service policy limiting the amount of old-growth cutting in the Northwest and forest-management rules now taking effect at the direction of Congress.

Mr. PETERSON. I think the celebrated speech that is referred to was probably his presentation before a panel of the Society of American Forestry where they had people expressing different points of view.

Mr. YATES. Is the colloquy that has been going on in the nature of a criticism in line with Mr. Crowell's suggestion that there ought to be a bigger cut of old growth? Is that the object of your question?

TIMBER SALES LEVEL

Mr. AUCOIN. The object of my questioning, Mr. Chairman, is to establish on the timber sales account that 11.9 billion is just very, very minimum; it is probably a figure arrived at by OMB not on the basis of any program policy decision as to what effect that would have ultimately on survival bidding on that limited amount of resource that is being bid on and in fact what that will result in in terms of lumber prices. That is my only point.

Mr. DICKS. We should be increasing that number this year instead of cutting back from 12.2 billion with this kind of high bidding going on out there. We ought to be putting more on to try to dampen that as being in the best interests of the consumer.

Mr. YATES. Why is that desirable in view of what the Japanese have done in cutting back saying that they have too much timber?

Mr. DICKS. We don't export. We could export the finished product, could we not?

Mr. PETERSON. Most of the export to Japan historically has been logs.

Mr. YATES. They are lumber exports.

Mr. DICKS. When you compare it with the total lumber that is exported from private lands and compare that with what is exported as the finished product, it is still rather minimal.

Mr. YATES. I suppose I should not have interrupted.

Mr. DICKS. We want you to know all about this. You are one of our best supporters.

Mr. PETERSON. Japan purchased about 2.5 billion board feet of softwood logs last year and about 631 million board feet of softwood lumber.

Mr. McDADE. Is that Douglas fir?

Mr. PETERSON. No, not all Douglas fir, all kinds of softwood.

Mr. McDADE. What percent would be Douglas fir?

Mr. PETERSON. I would think most of it would be Douglas fir, probably about 80 to 90 percent.

The export of logs is down some 19 percent in 1980 over 1979 and lumber stayed about the same, 638 million board feet in 1979 and 631 in 1980.

Mr. YATES. May I interrupt just a minute?

Had you finished your presentation with those cards?

Mr. PETERSON. No.

Mr. YATES. Let's go on with the card game then.

Mr. McDADE. Mr. Chairman, could I ask a question?

Mr. YATES. Mr. McDade.

SPECULATIVE BIDDING

Mr. McDADE. Because of the important colloquy that was raised by my colleagues who are experts in the field, I want to ask a couple of questions because there are some thoughts in my mind about the speculative bidding or survival bidding or whatever one wants to call it.

May any citizen bid?

Mr. PETERSON. Any citizen who is qualified may bid. They have to submit a cash bid bond and meet other requirements. But any qualified bidder may bid.

Mr. McDADE. They don't have to be associated with the industry?

Mr. PETERSON. You are supposed to have the capability of doing the job, but you don't have to own milling facilities, for example.

Mr. McDADE. In other words, the third party speculator with no mill, with no other access, can come in and begin to tie up a significant amount of public land and ignore those conditions?

Mr. PETERSON. You could, and there have been a few cases that to us looked like that is what was happening.

Mr. McDADE. Are there only a few of those in your judgment?

Mr. PETERSON. There are a handful of them.

Mr. McDADE. Can you assure the committee that even though these prices are escalating enormously there are in fact individuals who are legitimately concerned about the supply and they are trying to protect that supply?

Mr. PETERSON. We cannot make that judgment in all cases. Let's say a logger buys a sale. We don't really know to whom he is planning to sell the logs. You have a lot of small businesses that are loggers and they are in business to buy timber, cut the logs and sell them. I would say that we have had a very low rate of default, so that the people that buy the sale either do log it themselves or sell it to somebody else.

Mr. McDade. Returning the contract?

Mr. Peterson. Yes.

Mr. McDade. If a fellow is going to take a loss, can he find somebody else in the marketplace to buy his contract?

Mr. Peterson. He has in the past, with inflation going up; yes. In fact, that is what has caused these high bid prices. We are appraising at today's market and the bidder is bidding on what he thinks it may be worth four years from now.

ALTERNATIVES TO THE SHORTAGE

Mr. McDade. Have we no other policy? I know this committee has constantly busted the budget and supported increased cuts on the sustained yield basis in the appropriate management techniques in an effort to lessen the impact on the consumer. As my colleagues have pointed out in the price level cost of a home we seem to be chasing our tail around. No matter how much we increase the cut nor how much we put in, no matter what we do with respect to reforestation—and we have a chart and so on showing pretty much on pace with the 10 year program—the housing market while it is absolutely devastated by interest rates is not reflecting what is happening on the public lands with respect to bidding or timber resources. Now it seems to be a complete analogy and I have heard you use desperation for supply, et cetera, but have we any other policy other than to just permit the shortage to be spread around more, to get at that problem? What are we doing?

Mr. Peterson. Well, we are trying to do a large number of things. All the discussion so far has been about public lands. As you are aware, about three-quarters of the commercial forest land in the United States is private ownership. I think Senator Packwood's bill last year will provide increased incentives to private landowners.

Mr. McDade. Is there a similar bid up on private lands?

Mr. Peterson. Private lands, yes. In the Pacific Northwest, there is a very high rate. For example, the export market in the Northwest, which is coming from private land, prices for logs are in excess of $400 a thousand board feet right now.

The other thing that we have been trying to do for several years is to increase research to utilize more of the material that is already there, as well as to utilize it more efficiently in housing. We know, for example, and I am sure, with a little encouragement, Dr. Buckman will show you his artifacts again, that things like truss framed construction reduces the amount of lumber used in housing to 30 percent. So we have to look at a whole series of things: what we do on private land, what we do on public land, what we can do with research to both grow more and use it better. There is no one answer to this. It is different in different parts of the country.

In the Pacific Northwest right now, the lack of available timber on private land has created a real crunch for more logs in the

Pacific Northwest. In round numbers, for example, there are about 24 or 25 billion board feet of supply in the Pacific Northwest. We have almost doubled the output from the National Forests, in the Pacific Northwest since 1952. It has grown from 2.7 billion board feet up to about 7.1. During that same time period though, the timber available from farm and other private land has decreased by a couple of billion. The expected amount that is available from forest industry land is going to go down three or four billion board feet in the next several years. So there is a real crunch in the Pacific Northwest.

PRIVATE FOREST LAND

Mr. McDade. Why does that happen?

Mr. Peterson. Because the rate at which it is being harvested on private land is faster than it is growing.

Mr. McDade. Are you saying that the private lands are not being managed?

Mr. Peterson. They are being managed very intensively but they do not have the capability of supporting recent harvest levels.

Mr. McDade. They are not cutting on a sustained yield basis, is that what you are saying?

Mr. Peterson. Yes.

Mr. McDade. They are using a different philosophy than we are.

Mr. Peterson. They are responding to the market and providing logs during this very high market situation. So in the Pacific Northwest we are looking now at the departure provision in the 1976 National Forest Management Act which allows a temporary departure from traditional planning as a possible answer to help out. That would be a faster removal of some of the old growth than we are currently doing.

Mr. McDade. We now have more public lands under contract than ever before, don't we?

Mr. Peterson. More public timber under contract, yes, sir.

TIMBER UNDER CONTRACT

Mr. McDade. We know that recent sales are reaching very high levels. If you went back and blended out the price from the time in which this rapid runup occurred, the first question would be when did the rapid runup of land under contract of public lands start, and do you have any idea of an average or a mean price reflecting the activity that is taking place?

Mr. Peterson. Within the range of timber under contract we have had between 27 and 30 billion board feet. I cannot see any influence of that because it is of recent vintage.

Mr. McDade. How recent?

Mr. Peterson. We have had a low of about 24 billion, a little under 24 billion in 1974, and it has grown steadily from a little under 24 billion to roughly 30.5 billion in 1980. Let me remind you that that period has also been associated with great uncertainty about the future timber supply in the West, in the related roadless areas and so on. So it would be my judgment that timber under contract has been more than offset by the psychology of whether or not the sales are going to be available. We have a large number of appeals right now on the proposed timber sales in the Pacific Northwest and in California.

Mr. DICKS. Appeals?

Mr. PETERSON. Yes, administrative appeals of a proposed sale.

Mr. MCDADE. What percent does the 30 billion board feet represent of the total potential asset dedicated to the multipurpose exclusive of wilderness areas?

Mr. PETERSON. I am not sure I follow you.

Mr. MCDADE. You quoted that you have 30 billion board feet under contract.

Mr. PETERSON. Yes.

RESOURCE BASE

Mr. MCDADE. I am trying to picture the total resource base. You mentioned the RARE studies, they are associated with mineral claims, wilderness areas, is that correct?

Mr. PETERSON. That is right.

Mr. MCDADE. If you were to take the total of these resource base and eliminate the RARE studies for purposes of hypothesis, how much is out there as a resource base potential?

Mr. PETERSON. Let me give you the Pacific Northwest, exclusive of Alaska and Hawaii.

Mr. MCDADE. We are really focusing on that, aren't we?

Mr. PETERSON. There is roughly 500 billion feet of timber on the stump in the inventory.

In that region there is about 14.5 billion feet of timber under contract. This is one of the features of the Pacific Northwest in that, out of a total inventory of about 980 billion feet, over 540 billion of that is on the National Forest. Basically, the timber that is left in the Pacific Northwest is very much on the National Forest, a big inventory of old growth.

Mr. YATES. You mentioned that a lot of this is desperation bidding that has occurred because of the uncertainty as to what is going to happen downstream.

Mr. PETERSON. Yes. The projections that were made a part of RPA show for example, that farm and other private land that has already declined about three billion board feet since 1952, from 5.6 billion per year, these are softwood figures, down to 2.3 billion in 1976.

Mr. MCDADE. And that is because of cutting in response to the market.

Mr. PETERSON. Yes.

Mr. MCDADE. All right.

Mr. PETERSON. The theoretical net annual growth is about 3.3 billion. They were cutting it at 5.6 billion which could not be sustained, so now they are down to 2.3 billion. They will begin a gradual increase, but through the year 2000 they will still only be up to about 2.5 billion. There is no capability on those lands for increased outputs.

Mr. MCDADE. Until the year 2000?

Mr. PETERSON. Until the year 2000 they would be at about 2.5 billion, which is just a little bit more than it is now.

On forest industry lands that in 1976 were cutting about 11.2 billion, the net annual growth of those lands is only about 4.4

billion. So you see there is between 6 and 7 billion board feet per year in excess of new growth, which means that there will be a drop off of 4 or 5 billion feet a year beginning later in this decade. That will place a substantial crunch on the inventory that is on the National Forest in the Pacific Northwest and that is the reason for the controversy.

Mr. McDade. Let's look at that. You talk about 540 billion board feet.

Mr. Peterson. Right.

Mr. McDade. And about 14 billion——

Mr. Peterson. Under contract.

Mr. McDade. Where is the rest of that resource base, currently.

WILDERNESS AND ROADLESS AREAS

Mr. Peterson. Well, this inventory does include the roadless areas.

Mr. AuCoin. It does or does not?

Mr. Peterson. It does include the roadless areas, except the ones that were recommended by the Administration for the wilderness are not in this. But all of the non-wilderness roadless areas and all of the further planning areas are in these numbers.

Mr. McDade. Do you translate that out of the regional base?

Mr. Peterson. I don't have that number here today, but it is substantial for that region because most of those roadless areas do have very high volume.

Mr. AuCoin. Do you mean very high potential?

Mr. Peterson. Very high standing timber volume. Because they are roadless, they have not been entered and they have very high volumes and very high quality, too, in most cases.

Mr. AuCoin. Would you furnish the percentages for the committee.

Mr. Peterson. Yes.

[The information follows:]

Percentage of Sawtimber Inventory

The percentage of total sawtimber inventory on the National Forests which is located in roadless areas, excluding those areas that were recommended for wilderness by the Carter Administration is 25 percent. In the Pacific Northwest regon (Oregon and Washington) the percentage is 19.

Mr. McDade. You mentioned the roadless areas and you mentioned the potential wilderness studies, didn't you?

Mr. Peterson. The 540 billion feet that I have mentioned does assume non-wilderness roadless areas and further planning areas are available for harvest.

Mr. McDade. What is the figure if you assume that they are not?

Mr. Peterson. I cannot give you that. I don't have that with me today. We have that figure, we provided it at the time we sent RARE II up.

Mr. McDade. You can furnish that for the record.

Mr. Peterson. All right.

[The information follows:]

Volume of Sawtimber Inventory

The sawtimber inventory, if it is assumed that non-wilderness roadless areas are not available for harvest, is 405 billion board feet.

SUSTAINED YIELD

Mr. Dicks. Let me make one point which I think will help here. If we were operating on a sustained yield basis, what could we be harvesting per year out there compared to what we are harvesting or versus what we are selling?

Mr. Peterson. That region is very close to its non-declining sustained yield level. The potential yield of that region is about 5.3 billion board feet per year and they are very close to that at their current sale program. Now that number can increase. As you turn over some of the old growth, that number can increase if we do reforestation and other kinds of intensified work. But that is the current estimate.

Mr. Dicks. 5.3 billion?

Mr. Peterson. Yes, 5.3 billion. We will have a better figure when we complete the current round of planning.

Mr. McDade. There is a figure that we have used in respect to home building and the home building market from those particular lands we are talking about. It is a very high percentage, isn't it?

Mr. Peterson. Yes. The softwoods in the Pacific Northwest flow into home building markets in the Pacific Northwest, California and some of the inner-mountain area. The break in terms of transportation cost is somewhere east of Chicago, so much of the home building in the East is met either from the South or from Canada. But, yes, a high percentage of it does go into home building.

Mr. McDade. Would you give us your best estimate of the percentage?

Mr. Peterson. I would say in softwood, probably between 60 and 80 percent goes into housing.

Mr. McDade. Now if you use the Mississippi as the divider for the other public lands, is the percentage the same?

Mr. Peterson. No, the percentage of public land in the East is very low so most of the material in the East comes from private lands or from Canada. The National Forests in the East account for only about six percent of the commercial forest land base.

EASTERN TIMBER MARKET

Mr. McDade. Do you have a comparable runup in bidding in the public lands in the East?

Mr. Peterson. There has been an increase in bidding in the East. For example, Southern Pine began about $40 a thousand broad feet in 1970 and it was up to $153 in 1979. There has been an escalation of log prices nationwide; in fact, there has been the same escalation going back about 50 years. The real price of logs has been going up every year from one-half percent to a couple of percent a year.

Mr. McDade. Thank you.

Mr. Peterson. Would it be helpful if I went through the charts, Mr. Chairman?

Mr. Yates. No, we are going to adjourn in just a second.

LUMBER COST IN HOUSING

I am interested in a statistic that I have by Mr. Bingham who is the Senior Vice President of the Weyerhaeuser Corporation. It says here he testified on October 4 of this year before the Council on

Wage and Price Stability. We have been listening to percentages of the amount of the timber that goes into home building and he has testified as to what the cost of lumber for building homes is likely to be. It says this:

> The cost of all wood products in the average new home, including lumber, plywood, particleboard, shakes, shingles, moldings, and panels * * *

Which I suppose all comes from stumpage.

Mr. AuCoin. Not stumps.

Mr. Yates. [reading]:

> * * * has, according to Business Week's special report on housing last May, declined from 13 percent in 1970 to 12 percent in 1977, and apparently are no more than that in 1978. Our own economists calculate that no more than eight percent of the cost of the average house is wood products cost at the mill, before transportation, manufacturing and dealer charges, and the lumber component of that is about four percent of housing cost.

Do you figure that is about right?

Mr. Peterson. That is about the way I remember the notice. The increase in cost of housing, of course, as you know, is primarily related to interest rates.

Mr. Yates. It says:

> Thus, at present average new home prices, only about $2,600 of the $60,000 new home price is influenced by the lumber producer, and since less than 40 percent of lumber cost is stumpage cost, less than $1,000 of the home price is affected by timber price.

We will come back at one o'clock; otherwise, we will never get through with this.

Mr. Peterson. Thank you, Mr. Chairman.

AFTERNOON SESSION

Mr. Yates. We will go back on the record.

Mr. AuCoin. Mr. Chairman, could I just make one inquiry based on the colloquy you had before we adjourned dealing with the percentage of cost on housing.

The cost of an average house is what percentage of the entire mortgage? My feeling is that there has been a substantial increase in this percentage and I think you alluded to that in your remarks. Since we are dealing with a portion of 100 percent of the total cost, it seems to me since you have an explosion in interest rates you are going to be lessening the percentages for all of the other component costs of the house and therefore the lumber factor might be skewered artificially low because of this abnormal increase in interest rates.

Mr. Peterson. Well, we have information on the average sale price of the house which went up six percent in 1979 and another 15 percent during 1980. But if you add the increasing cost of interest, which probably went from 9 or 10 percent up to 14 percent, I cannot give you the exact numbers. It adds like $200 to $400 a month additional onto payments. If you take that over the length of a mortgage, it is by far the biggest factor in the cost of housing.

Mr. AuCoin. Making a comparison between that factor and the increased cost of housing, the letter the Chairman read from the gentleman from the timber company it would have to be said, would it not, that as interest rates have increased the share that that represents in the cost of the house is proportionately more.

Therefore the other component costs that go into the price of the house have been reduced in comparison.

Mr. PETERSON. I have the impression that maybe Bingham was talking about the sale price of a house, I am not sure he was talking about increased cost of money over 30 years. I have a feeling that he was talking about the end price of a house.

Mr. YATES. I thought the gentleman from the Weyerhaeuser Corporation was talking about the percentage which lumber is of the cost of a house and I would think as interest rates increase and the cost of the house increases that percentage goes down.

Mr. AUCOIN. It depends on what you are talking about in the price of home ownership. When I served on the Housing Subcommittee of the Banking Committee, I chaired a task force on that issue. As a percentage of the total cost of home ownership, interest rates obviously are a major part as they have increased as the other component costs that go into housing have decreased.

Mr. YATES. I agree with that. That is what we had said.

Mr. AUCOIN. The point I am making, Mr. Chairman, is that lumber prices have been on the rise and to view them as only a small percentage in this climate of high interest rates may not be taking into account the real damage that lumber prices represent to the consumer.

Mr. YATES. It is all right with me. I would have thought that the gentleman from the Weyerhaeuser Corporation would have been interested in showing as high a calculation as possible what that number is to the cost of a house but I was willing to accept his testimony on this. I assume that as the costs go up and as timber prices go up the amount of the cost of lumber that goes into the house will probably go up, too, but I am not sure the percentage goes up because other costs have increased, such as interest costs, the costs of labor, the costs of plumbing. Maybe we ought to get another calculation from Mr. Bingham.

Mr. AUCOIN. Or from some other source.

Mr. YATES. Or from some other source.

Mr. PETERSON. We have a chart showing those numbers over time, both in softwood and hardwood lumber prices.

Mr. YATES. Is that part of your cards?

Mr. PETERSON. We don't have that with us but we can provide that for you.

Mr. YATES. All right.

[The information follows:]

WOOD PRODUCTS SHARE OF HOUSE PRICES

In 1977, the National Association of Homebuilders estimated the cost of wood products, measured as a share of a new single family home, to be between 14 and 15 percent. Based upon recent trends in the costs of wood products and the sale prices of new single family homes, the wood products share is currently estimated to be about 13 percent.

Mr. PETERSON. In round numbers, there are 11,200 board feet of softwood in the average house. If the price of lumber goes up one hundred dollars a thousand, that means that it costs $1,100 more for that house because of that lumber cost. There are also 5,400 feet of plywood in an average house so you can easily see a $2,000 to $5,000 change in the price of lumber for a house. We are talking about that kind of factor.

Mr. YATES. Let's go back to the card game.

1980 RPA PROGRAM UPDATE—EXHIBIT H

Mr. PETERSON. All right. I am not sure you have seen this chart before, Mr. Chairman. That was the long-term Resources Planning Act program that was sent out last spring. As you recall, it had a high bound and a low bound at that time, which we called a slightly crooked wiener. The black line shows where we have been to date, including projecting 1982 on to the chart. The idea when the low bound/high bound came up was that the actual budget would be somewhere between the two.

Congress, as you recall, last year in the Appropriation Act, basically disapproved the low bound and approved the high bound. So we are no longer talking about a low bound/high bound. We are talking about the high bound as well as some additional direction in the Appropriation Act about improving the productivity of land and that the program was not high enough for timber for States, private forestry grazing and some other activities.

CONGRESSIONAL MODIFICATION OF RPA—EXHIBIT I

This is the RPA statement of policy as modified by the Congress, just some points out of it. It also calls for maintaining and enhancing the productivity on forest lands, that we set a goal of being a net exporter of forest products by the year 2030, and increase the productivity for commercial timber lands in all ownership.

Mr. YATES. Are we not an exporter now?

Mr. PETERSON. No, we are not. We are an importer. Last year I think the dollars just about evened-out between export and import for the first time. It also calls for looking at protection for fire, erosion, insects, disease, noxious weeds and stepping up that activity.

As you know, we have had special programs in southern pine beetle and so on over the years; maintaining and enhancing rangelands; providing 310 million animal-months of forage by the year 2030.

GRAZING—EXHIBIT J

Mr. YATES. How many do you have now?

Mr. PETERSON. That other graph shows that.

Mr. BEASLEY. It is 310 million.

Mr. PETERSON. No, no. This is total. Don't show national. Go back to the other chart we showed earlier. It is 100-and-some million.

Mr. YATES. How do you propose to reach that goal?

Mr. PETERSON. This is on all lands.

Mr. YATES. On all lands? What do you mean, all lands owned by the Forest Service?

Mr. PETERSON. No, public and private. The RPA covers both public as well as private land and these goals apply to all land.

Mr. YATES. As far as the committee and the Congress are concerned, we are dealing only with public lands, aren't we?

Mr. PETERSON. No. You are appropriating money to provide technical and some financial assistance to private landowners of the forest and rangeland. In the range area it is primarily research, that is, making available research information.

About 215 million AUMs at the present time.

Mr. YATES. Is that for all lands, too, or is that just for your——

Mr. PETERSON. No, that is all lands.

Mr. YATES. Well, what is your goal for just the Forest Service lands?

Mr. PETERSON. About 10 million AUMs is the short-range goal for national forest land.

Mr. YATES. Well, what is the Forest Service lands goal by 2030?

Mr. PETERSON. Let's see that chart. In 1990 it is a little over 10 million as I remember that chart, by the year 2030 it goes to only 10.6 at the program level.

You remember, we are only about 5 percent of the rangeland in national forests.

RANGELAND

Mr. YATES. Five percent of the rangeland?

Mr. PETERSON. We have about 5 percent of the rangeland and we are providing a little over 3 percent right now of the forage.

Mr. YATES. It is not much of an increase to go from 9.75 million to 10 million AUMs.

Mr. PETERSON. No, that is not a significant increase. I would have to tell you, Mr. Chairman, I think the range element of the RPA is probably the toughest one that we had to put together from an economic standpoint. It is very difficult to measure some of the non-forage aspects of improved rangeland. There is wildlife on those lands. Many of them are used for recreation and other purposes and we simply have not been able to capture that whole bundle of benefits from improved rangeland.

We have a program under way right now with several universities to try to improve the data base and the analytical base for our rangeland and that is being done cooperatively with BLM.

This is one of the things that, in looking at the revised statement of policy, the range goal was particularly criticized as not being high enough. I think that is probably a valid criticism. Anyway, that is where we are now with the RPA statement of policy with the congressional modifications.

MINERAL LEASES—EXHIBIT K

An area of particular interest now is minerals and mineral leasing and permits. The green part of this block shows what we estimated as a part of the Resources Planning Act long-term program. The brown part above that is our revised estimate. We simply did not anticipate the full impact of the increased search for energy in this country brought about by higher energy prices and by decontrol. We substantially underestimated the minerals impact. That is the reason that we have a substantial increase in our budget, when we come to it, for minerals and energy.

RECREATION VISITOR DAYS—EXHIBIT L

If you remember the projection of increased recreation demand, this shows our estimate. By the year 1990 we will be having about

273 million recreation visitor-days of use on the national forests. As you would recognize, Mr. Chairman, the availability of national forests in the East close to population centers makes them a very favorite place for people to go during the current energy shortage. They may not be able to afford going cross-country but they can get to the Shawnee Forest in southern Illinois, the Wayne-Hoosier in Ohio and Indiana, or to the Allegheny in Pennsylvania, and so on.

Mr. YATES. How are you going to get this expansion when your budget is being reduced?

Mr. PETERSON. Well, the budget is not being reduced in absolute numbers. It is being reduced over what we proposed.

Mr. YATES. I thought there was a $6 million cut. Yes, there is a decrease of $6.5 million and you are losing 93 positions, aren't you?

Mr. PETERSON. The 1981 budget was $97 million; the 1982 budget is $99 million. However, I will have to admit that when you crank in inflation and put in the loss of YCC and YACC, it will be a net reduction; yes, sir.

Mr. YATES. Well, isn't part of your test the number of positions you have? If you are losing 93 positions, thn there is no increase, is there?

Mr. PETERSON. That is correct.

Mr. YATES. Are the 93 positions in recreation?

Mr. PETERSON. Yes, sir.

Mr. YATES. What are you going to do, then?

Mr. PETERSON. We will have to shorten the season of use in some places. We will have to do less cleanup and other things less frequently in some areas.

Mr. YATES. Will you use private contractors?

Mr. PETERSON. We are already doing that to a great extent.

Mr. YATES. How much money is being saved as a result of losing the 93 positions? Very much?

Mr. PETERSON. Well, there is an $8.7 million reduction if you take the 1981 level and crank in inflation and then drop it back to where we are now, it is about $8.7 million.

Mr. YATES. We will get to recreation later. Let's finish the card game first.

Mr. PETERSON. You have seen the one on range.

Mr. YATES. Yes.

TIMBER SALE PROGRAM—EXHIBIT M

Mr. PETERSON. This is one on timber.

Mr. YATES. This is what Mr. AuCoin's interest was.

Mr. PETERSON. This is what Mr. AuCoin was asking about earlier.

This shows an increase over time of national forest timber sales, and as I was mentioning earlier, dropping below 11.9 billion board feet is not being recommended.

Mr. AUCOIN. What was the figure in 1979?

Mr. PETERSON. It was 12.4 billion.

Mr. AUCOIN. What was the figure the year before that?

Mr. PETERSON. The year before that it was 12.2, then 12.1, then 11, then 11.3.

Mr. AuCoin. Have we had a falling off of the 12-plus figures over the last 3 years?

Mr. Peterson. Since 1978. It was 12.2 in 1978 and it has held about 12.2. One year it was 12.4, and now back to 11.9.

Mr. AuCoin. It dropped to 11.9 last year and now we are at 11.9 again.

Mr. Peterson. Right.

TIMBER PROGRAMS ON STATE AND PRIVATE LANDS—EXHIBIT N

We do have some other programs that are directed toward trying to produce timber. This is timber produced as a result of the Sawmill Improvement program, to try to get sawmills to more efficiently manufacture logs, particularly in small operations.

It also reflects the benefits from the Forestry Incentives program, planting more trees and encouraging people to harvest. That amounts to about 3.9 billion feet a year which is a substantial addition to the total timber supply. It is a particularly important addition to the total timber supply since it is primarily in the East where it is close to markets. It is in the East and the South.

Mr. Yates. What is the nature of that program? It is a cooperative program and you show it as resulting in 2 billion board feet in 1980 and 2.1 billion in 1981 and 2.2 billion in 1982. Now how has that increased?

Mr. Peterson. It is increased by having more people participate in the Forestry Incentives program and more mills use the Sawmill Improvement program.

Mr. Yates. What is the Forestry Incentives program?

Mr. Peterson. That is technical and financial assistance to private landowners to reforest their land and improve existing timber stands. Mr. Roget, who is our Deputy Chief of State and Private Forestry, is dying to tell you all about that program.

Mr. Yates. Maybe we ought to finish the card game first, Mr. Roget.

IMPACTS OUTSIDE OF RPA—EXHIBIT O

Mr. Peterson. There are certain things that have happened since the Resource Planning Act program was sent forward, and I will just trigger those off. One is the Mount St. Helens eruption which has caused a lot of things to happen in the Pacific Northwest, including the biggest salvage operation we have ever been involved in in one place. It includes about 3.2 billion feet of timber altogether on private and public land that was blown down by the volcano.

Of that, about 1.6 billion is national forest timber, and we anticipate salvaging about 770 million feet of that according to our preferred alternative in the draft environmental statement we just filed. It would be technically feasible to salvage 800-some million board feet but we are not proposing to salvage it all. Some of it is inaccessible. The cost would be very high for some of it and it would not really be a good idea to salvage.

We are proposing to leave a core area as a geologic area in which we will remove only material that would block streams and that type of thing.

Then, of course, we have had the mineral and energy demand acceleration that I showed you where we have more requests for leases than we had anticipated, and finally the Alaska lands legislation. You probably remember that legislation set up a special fund in Alaska out of receipts that will provide 4.5 billion feet of timber per decade?

Mr. YATES. Yes.

OVERVIEW OF THE BUDGET—EXHIBIT P

Mr. PETERSON. To give you quick an overview the President's budget as related to us, payments to States from receipts amounts to about 12 percent of the budget; research about 6 percent; YCC is shown as zero there because it was there last year; construction about 28 percent; assistance to State and private landowners that I mentioned, about 3 percent; the national forest system about 51 percent.

I should point out that this is broken down the way the appropriation items are that you have up here but actually, most of the construction is in support of the national forest system, about 95 percent of it. Also, most of the payments to States, virtually all of that comes from national forest receipts. Actually our budget is 91 percent national forest, in that range.

Mr. YATES. Yes.

DISPLAY OF RESEARCH BUDGET—EXHIBITS Q AND R

Mr. PETERSON. This chart shows the research programs. It shows the percentage breakdown: about 27 percent is for insect and disease research. We are trying to target research to specific things that we saw in the Assessment. For example, in extending and increasing the softwood timber supply that I mentioned earlier. How can you use more of the fiber that is already there? How can you use it more efficiently in a building?

Eastern hardwoods provide a particular opportunity to increase the timber supply and serve as a substitute for softwoods, with about 5 billion board feet a year of hardwood growth, in excess of use. If we do not make that resource economically available over time that land will be diverted to other uses. In other words, the trees will be plowed down and it will be put to some other use unless there is an economic foundation for managing it.

Rangeland rehabilitation, anadromous fish habitat, and water and air quality: this shows what part of our budget goes into these various things.

Mr. YATES. Why water and air quality?

Mr. PETERSON. We are involved in trying to use fire to manage the forest ecosystem. There is a lot of prescribed burning to try to prepare seed beds and so on. In order to do that we have to understand what happens to the smoke, to manage smoke to meet the State laws and so on.

In regard to water, we are looking at how we can do our job and not foul up the streams. That is watershed and air quality research.

DISPLAY OF STATE AND PRIVATE FORESTRY BUDGET—EXHIBITS S AND T

In State and private forestry, we have already showed you some of the things that happened, the increasing timber supply through things like the Forestry Incentives Program and the Sawmill Improvement Program. We handle pest management on both Federal and State and private lands through our State and private organization.

If Congressman McDade were here he would talk about the gypsy moth or the spruce bud worm. Spruce bud worms are an international problem involving Canada.

There is also the Rural Fire Protection and Control Program with the States. That is the oldest single cooperative program that we have, fire protection with the States.

Then there is assistance in planning and management, primarily to help one State learn from what another State is doing, and help install modern systems that they might find useful.

DISPLAY OF NATIONAL FOREST SYSTEM BUDGET—EXHIBITS U AND V

In the national forest system, you will notice that 56 percent of the total budget is related to timber sales and support costs; 19 percent for fire protection, road and trail maintenance and other protection activities; 13 percent for soil and water range, wildlife and recreation; and 12 percent for reforestation and timber stand improvement.

The kinds of things that are pointed out in the RPA long-range program as we look at national forests is this intensified look at minerals, looking at land exchanges as a way to consolidate ownership and make it more efficient, and looking at timber management opportunities on the good sites.

LAND EXCHANGE OPPORTUNITIES

Mr. YATES. Is land exchange a viable alternative? How much do you do of that?

Mr. PETERSON. We do quite a bit.

Mr. YATES. Do you really?

Mr. PETERSON. Yes. It is primarily done in the West. The biggest acreage tends to be done with larger landowners but we do small land exchanges with even small landowners.

Mr. YATES. Do you do it on the basis of appraisals?

Mr. PETERSON. Yes, we do it on the basis of an appraisal. It must be of equal value or cash equalization up to 25 percent but mainly you can do that where you have a good land base, where you have some scattered land that you may want to get rid of, and you want to pick up some to consolidate.

In 1980, for example, we expect to do about 140 cases and we will pick up about 75,000 acres and we will dispose of about 61,000 acres.

Mr. YATES. Is that about average for each year?

Mr. PETERSON. That is about average, yes. Actually it is a little bit above 1978 but below 1976.

Mr. YATES. How valuable a device is this in connection with your land acquisition program?

Mr. PETERSON. It is a very valuable device. It is not a cure-all, in that some people who have land do not want more land. They want cash and we cannot handle that situation.

Mr. YATES. You are not going to have much cash.

Mr. PETERSON. However, it is a good device to trade land to somebody who wants other land. We are proposing a trade right now, for example, in Roseburg, Oregon where we have about 9 acres downtown and we propose to trade that for over 200 acres out in the forest.

Mr. YATES. Who has the 9 acres downtown?

Mr. PETERSON. We do. It was an old site that we acquired. It was given to us, actually, for research purposes, I believe from another agency that had it surplus.

Anyway, it is a good vehicle to accomplish some consolidation. At times we get opposition, though, from the exchange where somebody who is next to national forest land that we want to get rid of maybe complains that they do not like what might happen to the national forest land. Therefore, there is some controversy associated with it at times.

1982 BUDGET COMPARED TO 1981

I went through these numbers with you earlier but this shows the total change in the Forest Service budget between 1981 and the revised 1981 budget.

Mr. YATES. Have you lost $220 million?

Mr. PETERSON. $220 million out of $2.2 billion, about 10 percent.

REDUCTIONS IN LAND ACQUISITION FUNDS—EXHIBIT W

Mr. YATES. About 10 percent? Most of it from land and water funds?

Mr. PETERSON. Yes, the Land and Water Conservation fund.

Mr. YATES. How badly are you going to be hurt by that Land and Water Conservation Fund decrease?

Mr. PETERSON. Well, I think that if we can complete the cases we have under way now, in other words, where we have signed options, where we have made some good-faith commitments, I think if we can finish those and complete the cases that are in court, we could well get by with deferring major purchases for a few years, recognizing the inflation situation.

Mr. YATES. What about the Lake Tahoe area?

Mr. PETERSON. We are hoping that the Burton-Santini bill which provide for the sale of land near Las Vegas and provides a special fund for Lake Tahoe will result in somewhere around $10 million for Lake Tahoe. Mr. Leisz is our resident expert on that.

Mr. YATES. Why should you do that at Lake Tahoe alone? Why shouldn't you do that in other parts of the country where you need land?

Mr. LEISZ. As far as the total package that was put together for Lake Tahoe, why, this was a special bill brought through by Congress that limits the sale of those lands to gain purchases at Lake Tahoe. It is a fairly good balance in that a considerable amount of that purchase would be directed at the Nevada side of the Lake Tahoe basin and partly in California.

The difficulty, of course, is that the way that bill is formed it will require appropriations. Simply the sale of land in Clark County, Nevada will not give us the funds for acquisition at Lake Tahoe and the money for that will have to be appropriated.

Mr. YATES. There is nothing in the budget for it, is there?

Mr. LEISZ. No, sir.

Mr. YATES. How much money do you need?

Mr. LEISZ. Well, it was anticipated that the first year would run about $10 million.

Mr. YATES. What are your other critical needs? I suppose we will go into that later. We had better finish. There are so many things we have to talk about after we get through with the card game.

Mr. PETERSON. Right.

Mr. YATES. We had better finish that first.

Mr. PETERSON. Okay. Let me mention one, though, that I do not want to mislead you on. That is, you remember the Elena Gallegos ranch outside of Albuquerque?

Mr. YATES. Yes, in New Mexico.

Mr. PETERSON. On the strength of what was considered a promise from somebody in the White House, which we did not know about, the city pledged their parking garage in good faith for that option on that ranch.

Mr. YATES. Which White House?

Mr. PETERSON. The previous White House. We had suggested that we were not at all sure we were going to get that but there was at least a feeling of a commitment, so the city took an option on the whole thing with the idea that we would buy at a value of $17 million or $18 million. I would not want to mislead you that there are not those kind of problems.

LAND ACQUISITION COMMITMENTS

Mr. YATES. How many such problems do you have?

Mr. PETERSON. We have somewhere around $50 million altogether of problems of one kind or another where there were implied promises.

Mr. YATES. There is no money in the budget for them?

Mr. PETERSON. Not currently. Well, we do not know. In the 1982 budget, there is a $45 million item in there. It is yet to be determined how much of that will be the Park Service and how much will be the Forest Service.

Mr. YATES. Is that all the charts?

Mr. PETERSON. I think we are through with the charts. I am sorry it took so long for the charts.

Mr. YATES. That is all right, it is understandable because there were so many questions that the committee had.

While we are thinking about it, tell us where you need the $50 million. You need $10 million for Lake Tahoe; you need $17 million for the New Mexico piece. Where are the others?

Mr. PETERSON. There is a whole series of options that we have signed. Some of them are on the Appalachian Trail, for example. Some are in the Cascades.

Mr. YATES. You had better give us that for the record.

Mr. PETERSON. Yes, sir, we will. They are mostly small. There are none real large.

[The information follows:]

LAND AND WATER CONSERVATION OPTIONS

L&WCE options by acres	Dollars	Tracts	Acres
Composites	$9,732,000	88	17,662
Inholdings	490,000	5	428
Appalachian Trail	325,000	8	356
Wilderness Other	501,000	2	128
BWCAW	853,000	6	114
Alpine Lakes	57,000	4	128
Arapaho NRA	245,000	2	6
Mt. Rogers	5,000	1	8
SK-SR NRA	334,000	7	672
MF Clearwater WSR	92,000	7	36
Endangered Species	364,000	2	1,520
Total	$12,998,000	132	21,058
Deficiencies	$5,078,000		
Special areas:			
Elena Gallegos	19,200,000	1	7,461
Lake Tahoe	10,000,000		
Total	$29,200,000	1	7,461
Offers made:			
Appalachian Trail	61,000	6	69
Cascade Head SRA	1,,420,000	1	232
SK-SR NRA	118,,000	3	55
MF Clearwater WSR	148,000	16	174
Flathead WSR	1,375,000	11	973
Total	$3,122,000	37	1,503
Grand Total	$50,398,000		

Mr. PETERSON. Mr. Chairman, the Explanatory Notes are put together with the research first, if you want to go in that order.

Mr. YATES. Sure.

Mr. PETERSON. I will ask Dr. Buckman to move up with us.

Mr. YATES. What great discoveries has Dr. Buckman made since last he came here?

Mr. PETERSON. I think that is a good opening question.

Mr. YATES. Let's put him on the defense immediately.

Mr. BUCKMAN. I did not hear the question.

Mr. PETERSON. He wants to know what great discoveries you have made since last year, and you better have at least a dozen.

Mr. BUCKMAN. Mr. Chairman, last year we exhibited some of our utilization research.

Mr. YATES. Right.

Mr. BUCKMAN. This year, if the committee were disposed, we would like to emphasize the biological and the silvicultural side of our research program, that is, the actual growing of trees in the field.

PRESS-DRIED PAPER

Mr. PETERSON. However, first we are going to tell him about the press-dried paper.

Mr. YATES. Tell me about what?

Mr. PETERSON. Press-drying paper.

Mr. YATES. Press-drying paper?

Mr. BUCKMAN. Mr. Chairman, I think we have reported on this in the past but there have been significant new developments since we last mentioned this. It is a new way to form paper out of short-fibered tree species like the oaks and the other hardwoods. The paper thus formed is a substitute for paper made from softwoods. For example, one-eighth of all the wood fiber in the country goes into cardboard boxes.

Mr. YATES. One-eighth? That is a lot, isn't it?

Mr. BUCKMAN. If we could make cardboard boxes out of hardwoods, we could liberate the softwoods for other purposes. The industry is very much interested in this technology and we think that they are setting up pilot plants to study how to make this kind of paper.

Mr. YATES. How does this fit in with the Administration's desire to have private enterprise take over more of the research and development?

Mr. BUCKMAN. We think it fits very well, Mr. Chairman. We, the Forest Service, did much of the basic research on paper-forming processes, on bonding of fibers together. We have done this work in consultation with the forest products industries. They meet with us annually to talk over this process. They encourage us to continue the more basic research, and they are suggesting that they will take on the application side, building the full-scale paper machines to form that kind of paper.

Mr. PETERSON. I will give you a couple of numbers. If this process is put into full-scale use, it will make several million acres of hardwood in the East economically viable for making paper and will save the softwood materials that can go into housing.

In the process, this press-drying system uses less energy which is one of the payoffs. Right now, there is a proposal in the next few months to try to recycle paper through it, to use recycled paper to see if we can get the required strength from recycled paper. The tentative indications are that we can.

Therefore, if this proves to be feasible the way the pilot tests indiciate, it would be a whole new way of making paper in the United States. That is a major discovery or a major development.

Now you are going to tell him about biological research, right?

BIOLOGICAL RESEARCH

Mr. BUCKMAN. Mr. Chairman, could I use a chart?

Mr. YATES. Sure.

Mr. BUCKMAN. Mr. Chairman, the research that I would like to exhibit here represents more than half of the efforts that we do in our Forest Service research program. It is the kind of research that backstops our large, publicly managed forest lands but it also backstops small private woodland owners.

What I would like to characterize here is what can be viewed as four generations in the evolution of forest management. I would like to use loblolly pine as the example here because loblolly pine, if it is not now the most important forest type in the country it soon will be.

Mr. YATES. Who did the primary research on loblolly pine? Was it you or Weyerhaeuser?

Mr. BUCKMAN. We were in the research business a good many years before Weyerhaeuser.

Mr. YATES. Over the weekend I saw on television that they were the initiators of the loblolly pine growth.

Mr. BUCKMAN. Weyerhaeuser has made important contributions to loblolly pine.

Mr. YATES. Have they?

Mr. BUCKMAN. Yes, and we collaborate with Weyerhaeuser on a number of studies.

COOPERATION WITH FOREST INDUSTRY

Mr. YATES. Tell me how that happens. What is the nature of that cooperation?

Mr. BUCKMAN. Could I use an example from the West Coast?

Mr. YATES. Why, of course you may.

Mr. BUCKMAN. A number of years ago some Weyerhaeuser officials visited our laboratory at Corvallis, Oregon. We were having some success in Corvallis at synthesizing sex attractants for insects.

One of the problems that the Weyerhaeuser company had was a tip moth that was affecting ponderosa pine. Weyerhaeuser conveyed some funds to us, I think it was about $40,000, and our scientists worked with the Oregon Graduate Center, and synthesized a sex attractant.

Together, the Weyerhaeuser foresters and our folks in Corvallis, Oregon are testing this sex attractant in the ponderosa pine forests. This story is in one of their ads, by the way. The purpose of the sex attractant is to confuse the males so that they cannot find the females, and if they cannot find the females, there is no second generation.

It appears that this is a very successful and low-cost way of avoiding the loss of height growth in ponderosa pine.

Mr. YATES. The loss of what?

Mr. BUCKMAN. Height growth. When the insect bores down into the leader, the leader may only be approximately 6 inches, but if the insect is not there, the height growth will be approximately 18 inches.

Mr. YATES. You mean he is so busy looking for the female he does not look for the pine?

Mr. BUCKMAN. He needs to find the female before the female finds the pine.

Mr. YATES. I see.

Mr. BUCKMAN. That is an example, Mr. Chairman, of that kind of cooperation with industry.

Mr. YATES. How many insect species does that affect?

Mr. BUCKMAN. Just one. The sex attractant is specific to that one insect.

Mr. YATES. Which insect is that?

Mr. BUCKMAN. It is a pine shoot moth.

I know the common name but I do not know the scientific name.

ADVANCES IN LOBLOLLY PINE RESEARCH—EXHIBIT X

Mr. Chairman, Returning to our loblolly pine research, there are a number of collaborators in this kind of research, This forest type covers nearly 80 million acres and that is why it is going to be the most important single forest type in the country.

At the time we first entered these forests, and that was back around the turn of the century, the average yield, the average annual growth per acre was probably in the neighborhood of about 75 cubic feet per acre but there is a lot of variation depending on how old the forest was when the first entry was made. For loblolly pine this was done, again, 50 or more years ago.

The next generation of management is when you work with the natural forest itself, and here simply by maintaining stocking and by having rotation ages, that is, cutting intervals that are close to optimum, for loblolly pine we can raise that annual growth up to as much as 140 cubic feet per acre.

When we go into plantations, we have better control of spacing, we have thinning practices and other cultural techniques of that kind and we can gain another 16 or so feet up to 156 cubic feet per acre per year.

Now the next generation, the fourth generation is really the one that has been so successful in agriculture. This for forestry is the equivalent of hybrid corn or the "green revolution" for wheat and rice and so forth. It is this generation of activities that use vegetation control, insects and disease control, genetics, thinning, drainage and irrigation where that is appropriate, and fertilization.

Our evidence would suggest that we are already marching along this trajectory, this pathway for loblolly pine with experimental plots getting as much as 200 cubic feet per acre per year.

Now these are experimental plots, still not wide-scale application but that is coming. What one has to recognize is that loblolly pine covers nearly 80 million acres and not all of the acres are well-stocked. They have roads and wetlands and things of that sort.

This is what has actually happened on those 80 million acres.

ESTIMATED AVERAGE ANNUAL GROWTH—EXHIBIT Y

In the mid-1950s, the loblolly pine type was growing about 43 cubic feet per acre per year; in 1962, 53 cubic feet; in 1970, about 66 cubic feet per acre; and in 1977, about 75 cubic feet per acre as this technology was implemented.

LOBLOLLY PINE ON PRIVATE LANDS

Mr. PETERSON. Mr. Chairman, I probably should point out that almost all of that loblolly pine is on private land so it is not only necessary to have this research but it is necessary to have the information available through State and private forestry and extension services.

Mr. YATES. Why is that so? Why on private lands? Why not on yours?

Mr. PETERSON. Well, we just do not have much loblolly pine on our national forests.

Mr. YATES. In the East and South?

Mr. PETERSON. We have a little, but of the 80 million acres of loblolly in the United States, I would hazard a guess that somewhere in the neighborhood of 5 to 10 million acres at the most is on national forests. I am sure that in excess of 70 million of that 80 million is private land.

Mr. BUCKMAN. As Chief Peterson said, much of the technology to increase growth of loblolly pine is already available, not all of it but a good deal of it. Therefore, the educational programs, the technical assistance programs in State and private forestry, the work of the county extension agent or the technical forester for private industry can move us up fairly rapidly. However, there is a very substantial educational job to move these growth rates up.

RESEARCH ON OTHER FOREST TYPES—EXHIBIT Z

We have a research strategy that goes with most of the major forest types in the country and I have a few examples here. Actually, there are about 40 major forest types in the country. For Douglas fir, this growth is about what we can expect with the first entry, this is what the managed natural stand will do, this is what plantations will do and this is what intensive culture will do.

This is sitka spruce, which is still a somewhat faster-growing tree but of fairly limited range; ponderosa pine, which grows in the West; white fir, which grows in the high-altitude mountains of the West; red pine, which is a New England and Lake States species.

TIMBER MANAGEMENT OF HARDWOOD GROWTH—EXHIBIT AA

On this chart we have hardwoods: eastern cottonwood, probably the fastest-growing tree in the country, and very substantial gains can come in eastern cottonwoods from plantation management and from genetics and fertilization; yellow poplar, a very valuable tree for construction material; mixed oaks, of great interest in the country because there is so much of it and the volumes are increasing.

The growth rates on mixed oaks and some of the other hardwoods are not very fast by comparison with other hardwoods but the thing about the oaks is that there are great opportunities for quality improvement. The least valuable cubic foot of oak is worth only about one-fiftieth as much as the most valuable cubic foot, so it is quality increase that is important here.

In summary, research of this accounts for something like 50 or 60 percent of our program. It is the biological side of the research activity.

Mr. PETERSON. In our looking at this, Mr. Chairman, if we are going to meet these increasing needs on the same or a smaller land base it is fairly obvious we have to be able to grow more on that land base as well as use it better. Therefore, we think the research investment is one of the best investments we are making to help with long-term productivity. If we use up our research capital it will take a while to replenish it.

ACID RAIN RESEARCH

Mr. YATES. How much money are you putting into acid rain research?

Mr. BUCKMAN. About $800,000.

Mr. YATES. To do what?

Mr. BUCKMAN. It is to maintain a series of monitoring stations, Mr. Chairman, at several locations in the country.

Mr. YATES. Is Interior doing this kind of work, too?

Mr. BUCKMAN. Yes, sir, some of the Interior agencies are.

Mr. PETERSON. Well, I might correct that. They are participating in the monitoring. The net that has been put out covers all kinds of lands, and they are participating in the monitoring net.

Mr. YATES. How do you work with EPA?

Mr. PETERSON. We have an interagency committee on acid rain that also works with Canada, where there are some major questions.

Mr. YATES. Canada is really complaining about this, aren't they?

Mr. PETERSON. That is right. There will be a state-of-the-art publication out in the next couple of months that tries to pull together all that we know about acid rain from a scientific standpoint. It has been done by a work group involving the United States and Canada. The publication will at least say, "Here is what we know about it from a scientific standpoint," to serve as a basis for policy discussions.

We are fortunate that some of the research done on acid rain goes back about 10 years or so, so that we do have in at least some places information that has been tracked over time.

Mr. YATES. Is EPA taking the lead on acid rain research? Who is taking the lead on that?

Mr. PETERSON. There is the interagency committee that is working on it. There are different agencies that have the lead on different parts of it.

Mr. YATES. Who is pulling it all together?

Mr. PETERSON. USDA is chairing a technical group that is pulling together all that we know about acid rain from the technical standpoint.

Mr. BUCKMAN. A major coordinated plan, Mr. Chairman, is being prepared as part of the synfuels bill of last year.

FIRE AND ATMOSPHERIC SCIENCES RESEARCH

Mr. YATES. You are losing about $579,000 from the Carter budget request in connection with your fire and atmospheric sciences research. How much will that hurt you, if any?

Mr. BUCKMAN. This research, Mr. Chairman, refers to prescribed burning studies on Western rangelands. Fire is one of the tools that we can use for range rehabilitation. Fire is used to first remove the undesirable vegetation, then it is followed by seeding with appropriate grasses.

We also have a little work in air quality research related to fire and atmospheric sciences.

PRESCRIBED BURNING

Mr. YATES. What are the advantages of a burn for rangeland improvement?

Mr. BUCKMAN. Many of the undesirable plants are sensitive to fire, and they come in in the absence of fire or associated with heavy grazing. Fire is an inexpensive way to remove those plants, destroy them, then follow by grass reseeding.

Mr. YATES. Does fire hurt the soil?

Mr. BUCKMAN. No.

Mr. YATES. You are going to postpone development of prescribed burning techniques for a while?

Mr. BUCKMAN. For Western rangelands, yes, sir.

Mr. YATES. Because of the lack of funds?

Mr. BUCKMAN. Yes, sir.

Mr. YATES. Does that mean you are going to use more herbicides?

Mr. BUCKMAN. We will use what herbicides are approved, and we will probably also use mechanical equipment for removing undesirable plants.

Mr. YATES. How much of the $579,000 will you actually be saving, then? These are going to cost you something, aren't they? Will you be saving much money, really? You have to do the work, don't you?

Mr. PETERSON. Well, again most of this rangeland is not national forest or even public rangeland. Quite a bit of it is private rangeland.

Mr. YATES. Does that mean you are going to let them spend the money?

Mr. PETERSON. The private landowner will have to spend the money, yes, sir.

Mr. YATES. He is not going to like that, is he?

Mr. PETERSON. Well, there is some technology available already.

Mr. YATES. This is not something new so you are moving on to other fields to conquer.

Mr. PETERSON. No. We had a proposal to do some more work in Western range prescribed burning because we believe it will save a lot of money if we had research data to back it up. It will take some time and it is an item that we deferred from the 1982 budget.

FOREST INSECT AND DISEASE RESEARCH FUNDS

Mr. YATES. You are losing $600,000 from your Forest Insect and Disease Research.

Mr. PETERSON. That is correct.

Mr. YATES. How badly will this hurt you?

Mr. BUCKMAN. This will postpone work, Mr. Chairman, on some of the Western bark beetles, on an oak wilt problem in the South, and some work on wood deterioration in storage yards.

EXPORT OF OAK LOGS

Mr. YATES. Will that have any impact on the export of oak logs?

Mr. BUCKMAN. It could, Mr. Chairman. Each year we export about $100 million of oak logs to Western Europe and one of the concerns is that a disease in this country may be transmitted there. It is called "oak wilt". The amount that was contained in the Carter budget was about $50,000. We will search for alternative ways to get that job done if it is necessary.

Mr. YATES. What do you mean, by research?

Mr. BUCKMAN. Yes, sir. The research here involves the use of fumigants on the logs before they are put into the holds of ships so that the pathogen is destroyed before it leaves the country.

SOFTWOOD AND HARDWOOD PRODUCTION

Mr. YATES. Do you have figures which would show the actual private forest acreage being managed for softwood production and hardwood production?

Mr. PETERSON. Yes. We have information on private ownership of commercial forest land.

Mr. YATES. Does this also tell who owns the land, the size of the holdings and the condition of them?

Mr. PETERSON. The category of ownership and size of holdings is included.

Mr. YATES. Do you want to put that in the record?

Mr. PETERSON. I sure will. There are about 7 million private land owners. We can give you the details.

Mr. YATES. All right.

[The information follows:]

PRIVATE OWNERSHIP OF FOREST LAND

Forest Service surveys show the following breakdown of private ownership of softwood and hardwood acreages in the United States as of January, 1977 (million acres):

	Softwood	Hardwood
Forest industry	37	32
Farm and other private	79	199
Total	116	231

The following three tables show the distribution of forest acreage by owner type, owner occupation, and size of holding. The source of this information is the 1978 Economics, Statistics, and Cooperatives Service landownership survey and the 1977 Soil Conservation Service national resource inventory.

TYPE OF LANDOWNER—DISTRIBUTION OF FOREST LAND OWNERSHIP UNITS AND ACRES OWNED BY OWNER TYPE

Type of owner	Acres		Ownership units	
	Million	Percent	Thousand	Percent
Sole proprietor	96.9	29.1	3,326	42.9
Husband-wife	86.6	26.0	3,467	44.7
Family partnership	28.4	8.5	376	4.8
Nonfamily partnership	7.4	2.2	107	1.4
Family corporation	11.6	3.5	36	.5
Nonfamily corporation	89.5	26.9	199	2.6
Miscellaneous	12.2	3.6	234	3.0
No plurality	.5	.2	12	.1
Total	333.1	100.0	7,757	100.0

OCCUPATION.—DISTRIBUTION OF FOREST LAND OWNERSHIP UNITS AND ACRES OWNED BY OCCUPATION

Occupation	Acres		Ownership units	
	Million	Percent	Thousand	Percent
Farmer	54.3	24.8	520	7.2
White collar	49.1	22.4	2,185	30.1
Blue collar	36.4	16.6	1,673	23.1
Retired	46.7	21.4	1,765	24.3
Other	11.5	5.3	436	6.0
No response	20.9	9.5	674	9.3
Subtotal	218.9	100.0	7,253	100.0
Corporations, estates, et. cetera	114.2		504	
Total	333.1		7,757	

SIZE OF HOLDING—DISTRIBUTION OF FOREST LAND OWNERSHIP UNITS AND ACRES OWNED BY SIZE OF HOLDING

Size of holding—acres	Acres		Ownership units	
	Million	Percent	Thousands	Percent
Less than 10	11.0	3.3	5,527	71.3
10 to 49	28.1	8.4	1,164	15.0
50 to 99	32.9	9.9	465	6.0
100 to 499	102.6	30.8	538	6.9
500 to 4,999	63.3	19.0	59	.8
5,000 and over	95.2	28.6	4	[1]
Total	333.1	100.0	7,757	100.0

[1] Less than .05 percent.

RENEWABLE RESOURCE EVALUATION

Mr. YATES. What are the total requirements for rangeland evaluation?

Mr. PETERSON. Are you talking about the renewable resources evaluation items?

Mr. YATES. Yes.

Mr. PETERSON. This is the work that I mentioned before on trying to do a better job of evaluating the economics of range management, trying to capture all the benefits for the nonforage resources. We consider that a high-priority kind of research. It would take longer to complete that research. We have some ongoing research now and it would just take longer to complete it at this budget level.

Mr. YATES. What effect will this have in the South, particularly your productive forest land that is now being converted to hardwood?

Mr. PETERSON. The most effective thing to do in the South, of course, is to get people to take advantage of some of the tax incentives that were passed last year and other programs to actually reforest that land rather than let it come back in hardwoods.

RENEWABLE RESOURCE ECONOMICS

Mr. **Yates**. What do you propose to do with the renewable resource economics activity?

Mr. **Buckman**. Mr. Chairman, our economics research evaluates the consequences, the payoff from a whole series of forest and rangeland practices. It is the program that helps guide the most efficient investment of dollars both in public and in private land. It is a program that examines market mechanisms for the distribution of forest products, both domestically and internationally. It looks into the consequences of forest land tax policy and things of that sort.

Mr. **Peterson**. Recently that unit made an analysis of what would happen if you banned exports on the West Coast, for example, on economics and international trade. They put together the models that can examine those questions.

SEALED BIDS VERSUS ORAL BIDS

Mr. **Yates**. Yes, but one of the things you discovered as a result of this research was that sealed bids got you more money than oral bids. Have you converted to sealed bids?

Mr. **Peterson**. We have a mixture of oral and sealed bids.

Mr. **Yates**. Why do you use oral bids?

Mr. **Peterson**. Well, you might remember the controversy a few years ago.

Mr. **Yates**. I remember the long discussion we had last year.

Mr. **Peterson**. You have quite a few sales that, unless you have oral bidding, you end up with a situation where a speculator comes in and just picks up the sale. Nobody knows anything about it until it is all over. There is that kind of sophisticated pirating that can go on with a local company.

Mr. **Yates**. Why can't you require qualifications for participating to prevent this kind of pirating from happening?

Mr. **Peterson**. Oral bidding actually is a mixture of sealed bidding and oral bidding. Everybody has to submit a qualifying bid of at least the appraised value as a basis for oral bidding, and then the oral bidding starts above that number. That is what we are currently doing in many places.

Mr. **Yates**. Isn't it true that if you had all sealed bidding you would make more money?

Mr. **Peterson**. I am not 100 percent sure of that. You probably would on small sales. The data is a little bit mixed on that subject.

Mr. **Yates**. Do you want to furnish the committee with the data? You say one of the studies contains it. Is it a study of national forest timber sales?

Mr. **Peterson**. Yes. That was a study, I believe, about four years ago and that was mostly on small sales. We do not, as a standard practice, require sealed bids on most small sales. Sealed bids are mostly in the East, and we use sealed bids for these.

[The information follows:]

Oral Bidding versus Sealed Bidding

The results of an analysis by Alfred A. Wiener, former Chief Appraisal Officer for the Forest Service, now retired, were published in the June 1979 issue of the Journal of Forestry. The title of the article was "Sealed Bids or Oral Auctions:

Which Yield Higher Prices?" The conclusions are summarized in the article abstract as follows:

"When National Forest timber is sold by sealed bid, prices tend to be higher than in sales by oral auction. This conclusion is derived from analyses of 1977 data from seven Forest Service Regions (or zones)—all west of the Mississippi River—where both sales methods were used. The differential was greater for larger sales than for small, and greater in Regions where timber processors are numerous or where one-bid sales are common. The primary analysis was in terms of overbids, i.e., prices in excess of the Forest Service appraised values; but comparisons of net and gross stumpage prices yielded the same conclusions. There was no strong indication that dependent mills changed their bidding patterns, or lost their timber supply, when sealed bids were used."

WATERSHED RESEARCH

Mr. YATES. Watershed research is being hurt by about half a million dollars.

Mr. BUCKMAN. It will postpone some work, Mr. Chairman. It will stretch out some work on water augmentation and avalanche forecasting in the mountainous West and it will postpone some specialized studies on the Eastern slopes of the Cascades in Oregon and Washington.

Mr. YATES. Do you have any other research that is related to clearcutting, other than that?

Mr. BUCKMAN. Yes, sir.

Mr. YATES. Therefore, these funds are not needed for that?

Mr. BUCKMAN. This research is specific to that climate and that part of the country.

EFFECT OF MINERALS EXPLORATION ON WATER QUALITY

Mr. YATES. You are stepping up mineral activity on forest lands. What impact will this have on the production of good water?

Mr. BUCKMAN. It will have very little impact on the production of water. It could have some consequences on the quality of water.

Mr. YATES. Yes. That is what I am interested in right now. It could have some bad consequences.

Mr. BUCKMAN. Yes, sir, it could.

Mr. YATES. How do we protect against that?

Mr. PETERSON. I think one of the fortunate things, Mr. Chairman, is that the Surface Environment Mining Program, the so-called SEAM program that this committee was instrumental in helping fund several years ago, has helped provide a significantly improved scientific base for stabilization of disturbed lands. That was a program that began about seven or eight years ago and has provided a substantial amount of information on how to rehabilitate disturbed lands. We continue a small effort in that in this budget, $2.2 million.

Mr. YATES. Shouldn't there be a greater effort in this respect? I am concerned about protecting the quality of the water. As you open up your lands to greater mining, what steps are you taking to protect whatever water those lands generate?

SUPERVISION OF MINERAL PERMITS

Mr. PETERSON. Each operating plan or permit contains stipulations on the protection of watercourses and on measures to rehabilitate the surface.

Mr. YATES. How will you know whether the permittee is following those requirements?

Mr. PETERSON. Well, there is a certain amount of on-the-ground checking of what is happening.

Mr. YATES. By whom?

Mr. PETERSON. Depending on who is administering; if it is national forest land it would likely be by us. USGS does supervision of some operations on private land.

Mr. YATES. You do not have enough people to supervise it, do you?

Mr. PETERSON. Well, in the 1982 budget we are going to have to shift some more people and we have to increase money in the budget for the minerals activity.

Mr. YATES. How are you going to be able to use your people if you are losing 129 people from your force? How are you going to be able to police this kind of activity?

Mr. PETERSON. Well, you mentioned earlier that we have fewer people in recreation, we have fewer people in some other parts of the operation.

Mr. YATES. You are just going to have fewer people.

Mr. PETERSON. We will have to begin shifting some of those people. We will be doing less land acquisition. We will have to use some people that used to do land acquisition for that kind of activity. We will have to adapt our organization to this new impact of the budget.

WORK FORCE FOR MINERALS ACTIVITIES

Mr. YATES. Tell me how it works? Here you have a national forest out West. Pick out a national forest. You open it up for mining, or it is open for mining anyway?

Mr. PETERSON. Right.

Mr. YATES. How are you going to expedite that? As I remember one of your charts, the number of permits is going to increase dramatically, is that right?

Mr. PETERSON. No, not overall. We are increasing it for people related to minerals. We are adding about 80 person-years.

Mr. YATES. What is a person related to minerals?

Mr. PETERSON. That is a person that is working on either review of a lease application or supervision of what is happening. We plan to put about 85 additional person-years into that activity.

BACKLOG OF MINERAL LEASE APPLICATIONS

Mr. YATES. Do you have a backlog of leases now?

Mr. PETERSON. Yes, sir.

Mr. YATES. How big a backlog?

Mr. PETERSON. We receive about 24,000 lease applications a year and we have a backlog of around 10,000, I think.

Mr. YATES. Ten thousand out of twenty-three thousand?

Mr. PETERSON. No. We get about 23,000 per year.

Mr. YATES. Do you have a 10,000 backlog of applications?

Mr. PETERSON. A seven thousand backlog.

Mr. YATES. Which is made up of applications covering how many years? Just one year?

Mr. PETERSON. Well, some of them are older than that because we were waiting to clear the roadless area question. We are trying now to clear leases in two months where we have completed land management plans, but they run from two months to a couple of years.

Mr. YATES. Here we are, Minerals Program, minerals, leases and permits, 1980 RPA projection and revised estimates. In 1980 you have had 21.5 applications.

Mr. PETERSON. Right.

Mr. YATES. That was increased in 1981 to 22.1; in 1982 it is going up to 25.3; in 1985 it is going up to 40.0.

Mr. PETERSON. That is our projection.

Mr. YATES. That is the applications, is that right?

Mr. PETERSON. Applications for leases.

Mr. YATES. How do you handle that workload with fewer people?

ADJUSTMENT OF WORK FORCE

Mr. PETERSON. We are proposing to put 85 person-years of additional work into minerals next year.

Mr. YATES. Where are you going to take them from?

Mr. PETERSON. Well, we will take them out of some of the other activities that are reduced like land acquisition and recreation.

Mr. YATES. How are you going to take them out of recreation when you are losing 93 people from recreation?

Mr. PETERSON. No, we will move those people over from recreation to minerals.

Mr. YATES. Oh, I see.

Mr. PETERSON. We also will be using fewer people in managing the YCC, so it will be an internal adjustment which in some cases means some retraining.

Mr. YATES. After you get through with all this do-si-do-ing of your people are you still going to be 139 people short of what you were previously?

Mr. PETERSON. That is correct.

Mr. YATES. What are you going to do about the vacant chairs?

Mr. PETERSON. There are two things that we will do.

Mr. YATES. Do you know how the others, who have come in to testify, have responded to the same question? "Mr. Chairman, we are going to have to get smarter."

Mr. PETERSON. I was going to say there are three things we are going to have to do. One will have to include getting smarter. The other is that when we lose some people from one activity, we will hire somebody back to work in another activity. We have, for example, over the last 10 years, added a considerable number of geologists and those kinds of people working on minerals.

Mr. YATES. Are they going to process your applications?

MINING ADMINISTRATION

Mr. PETERSON. They will be working on processing applications.

Mr. YATES. Who is going to look at what the miners are doing out on the land?

Mr. PETERSON. That is primarily done by people at our district level, the District Ranger and his force.

Mr. YATES. How big will his force be? Is he going to keep the same force?

Mr. PETERSON. He is going to have to take some people that he previously used to supervise YCC or to do recreation supervision, and they are going to be out supervising mineral activities.

Mr. YATES. What happens if Congress decides to give you the money for YCC?

Mr. PETERSON. If we should get the YCC money, we will have to make another internal shift to cover that. That is the way the real world works. You have to use the people you have.

Mr. YATES. I have never been in your real world out there so I do not know how it works but sitting in this unreal world, it seems to me that you have only so many pawns to move on the board.

Mr. PETERSON. That is correct, and in all fairness it will be more difficult in the East and the South. In the East and South we have large human resource programs. The mineral activity is taking place to some degree in the East but to a large extent in the West, so we will have to transfer people across regions.

PERMIT COMPLIANCE

Mr. YATES. How are you going to protect Mr. AuCoin's water out in his forest if you are going to permit miners to come in and open up mines there?

Mr. PETERSON. We will do it by good stipulations on the permit and also supervision of the permit.

Mr. YATES. You know that they do not read the permit once they sink the shaft.

Mr. PETERSON. Well, we have had reasonably good success on compliance with permits.

Mr. YATES. You have?

Mr. PETERSON. Yes, sir.

Anyway, I would not minimize the problem in making a shift of people that were doing land acquisition in the East to areas of high minerals impact such as Utah.

WATER POLLUTION

Mr. YATES. How much of a problem is water pollution in your forests?

Mr. PETERSON. It is always a concern when you are in steep country and on unstable soil so you simply have to have a fairly good level of compliance with good practices. That is true on timber sales, on mining claims, mineral leases and so on.

Mr. YATES. Do you have a program for protecting the lands from overmining? How will you know what the limits of your forest acreage are? How will you know the limits of your forest acreage for mining?

WATERSHED MANAGEMENT

Mr. PETERSON. With reference to the watershed research that we looked at a while ago, we are trying to model certain watersheds in some places to look at the cumulative impact of certain kinds of activities on those watersheds. We have quite a bit of information on that but not as much in some places as we would like. It is not the effect of one thing in the watershed, it is the cumulative effect of many things in the watershed.

Mr. YATES. Are you going to open your watersheds to mining?

Mr. PETERSON. Well, in my use of the term "watershed" every forest is a watershed.

Mr. YATES. Then you are going to open up the watersheds to mining.

Mr. PETERSON. They are open now.

Mr. YATES. They are open now and you are going to stimulate more mining out there.

Mr. PETERSON. We are not stimulating. It is being stimulated by the search for minerals.

Mr. YATES. How do you protect against the overmining? Do you have limits?

Mr. PETERSON. We have limits that we specify in the operating plans, yes.

MINING APPLICATIONS

Mr. YATES. Yes, but that is not what I mean. Do you have limits on the number of applications per acre, for example?

Mr. PETERSON. Well, let me point out that when we issue a lease or a prospecting permit, a company may look around on several thousand acres and either find nothing or find it in one of more different spots. There are two phases of this: one is that you look at the leases themselves, but the more important place to look is on the specific operating plan for a specific area. In other words, if there has been something found it is in a particular location and this is the development that is proposed. At that point you have to be sure that the development is handled carefully.

WATER POLLUTION

Mr. YATES. I asked you a few moments ago about whether or not the pollution of the water is a problem. I do not remember your response. Did you say it was a problem, or it is a major problem, or is it growing, or is it lessening?

Mr. PETERSON. It can be a problem.

Mr. YATES. Is it a problem?

Mr. PETERSON. In some locations, yes.

Mr. YATES. Where is it a problem?

Mr. PETERSON. It is a problem where access is difficult and where you have erosive soils that you have to get through, so you have to use great care in putting the roads in. It is a problem where there is a lot of overburden that has to be disposed of to get to the mineral site. Each one of those has to be worked out as a particular problem.

Mr. YATES. Do you have any complaints from any people or municipalities or governmental organizations in any of the States as to the deterioration of the water as a result of activity in the forest lands?

Mr. PETERSON. Not a great deal at this point. There is some concern for some old, abandoned mine tailings that had uranium in them and they are radioactive, and this type of thing.

Mr. YATES. Where is that?

Mr. Peterson. In Colorado, for example, Utah.

Mr. Yates. Yes, that is where your tailings would be.

Mr. Peterson. It is mostly orphan mines that have been abandoned that are a problem. Current mining activity is being done to a standard where we do not get that many complaints of the handling of erosion.

Mr. Yates. Does any pollution exist as a result of timber activity on your lands?

Mr. Peterson. Well, technically there is some increase in sedimentation in a watershed any time you do anything.

Mr. Yates. What about the use of the small mills?

Mr. Peterson. The disturbance in the watershed comes about from not only the timber harvesting but from the access roads that are associated with it. In planning our timber sales, we have an interdisciplinary team to look at the timber sale in terms of both the prescription of the harvest, as well as where the roads should be located, how the roads should be built, and what stipulations are necessary to protect the watercourses. Each live watercourse is indicated on the map with a certain prescription to be followed.

The big problem is really just seeing that it happens in practice. The contractual requirements are pretty good at the present time.

MINERAL PROGRAM EXPANSION

Mr. Yates. Do you see any problems in connection with the expansion of your minerals program?

Mr. Peterson. Sure. I see some problems but I do not think they are insurmountable.

Mr. Yates. What problems do you see?

Mr. Peterson. I see problems of working closely to get the access located well in the area so it does not do a lot of damage to the country. I see problems of disposing of excess material from certain mines. However, I do not see any problems that cannot be resolved in most cases.

AVAILABLE PERSONNEL FOR ADMINISTRATION

Mr. Yates. How do you know whether the problems are being resolved? You do not have any people to look at it, really.

Mr. Peterson. Well, we have some people to look at it and we are putting more people into that effort.

Mr. Yates. How many acres of land will your people have to supervise here?

Mr. Peterson. We have 190 million acres of land, but mineral activity is not occurring in the entire area.

Mr. Yates. How many people do you have? How many rangers do you have to look at the 190 million acres?

Mr. Peterson. We have about 22,000 permanent, full-time people of all kinds.

Mr. Yates. Of all kinds? Including the 20,000 in Washington?

Mr. Peterson. We only have between 4 and 5 percent of our people in Washington. I am happy to say we try to keep them lean and mean.

Mr. Yates. OMB is helping you, isn't it, by making you leaner?

Mr. LEISZ. Mr. Chairman, I wonder if I could enter the mineral one? Within the last year, I have looked at mineral operations in a number of the States.

Mr. YATES. Good. Tell us about them.

Mr. LEISZ. I have been in Colorado, Idaho and Utah, where hard-rock mining, energy-related mining, and coal activities are underway.

Mr. YATES. Yes.

Mr. LEISZ. There is no question that our people are being hard-pressed to keep up with the applications and the pressures that are on them to respond to those new developments, the exploration as well as the actual mining itself.

We are finding with the geologists on hand, and with the professionals we have hired, our people have become very skilled in water and soil management, vegetation management. We are getting exceptionally fine response from responsible companies in carrying out those jobs. They want to show us that they can be good stewards of the lands.

With the increase in mineral activity, both funding and personnel will be hard-pressed but we think that we can do a reasonable job.

Mr. YATES. You have the same goals that we have. We want to be able to protect those lands and to protect the waters and to protect the forests, and that is why I am asking the questions that I am. Can you do it with the staff limitations and the financial limitations that are being imposed on you?

Mr. LEISZ. We will be stretched to the absolute limits of our abilities.

Mr. YATES. What happens next year or two years from now when Mr. Stockman comes in with a double cut——

Mr. PETERSON. Well, you recognize that we did not cut——

Mr. YATES. And you have an expanded minerals program? What do you do then?

Mr. LEISZ. We will need more people.

INITIAL MINING CONCERNS

Mr. BUCKMAN. Mr. Chairman, a number of the questions that you pose were raised a half a dozen years ago when coal mining first began in the West. It was at that time that the Congress supported the SEAM program. Some of the rehabilitation programs that we thought were formidable at that time really have turned out to be tractible and solvable, I think that some of the controversy surrounding coal, phosphates and hard-rock minerals have been set to rest because of this rehabilitation research. I guess I am not nearly as concerned about the elusiveness of the answers as I might have been a half a dozen years ago.

Mr. YATES. Do you think it is working out fine?

Mr. BUCKMAN. Yes, sir.

FUNDING FOR MINERALS ACTIVITY

Mr. PETERSON. I would point out, Mr. Chairman, that the 1982 budget is a 33 percent increase over 1981, the current estimate.

Mr. YATES. Well, where did the increases occur?

Mr. PETERSON. This is in minerals.

Mr. YATES. This is for the expansion of your minerals activity?

Mr. PETERSON. This is for the expansion of the minerals activity.

Mr. YATES. You are trying to get rid of your backlog, aren't you?

Mr. PETERSON. We expect to have about 11,300 applications at the end of 1981. We hope to process the current ones and reduce the backlog by about 2,300 by the end of 1982.

I should be candid with you and tell you that we may have underestimated this again so we do not know for sure. This minerals activity is growing by leaps and bounds.

Mr. YATES. I know.

FUNDING REDUCTION FOR RANGE AND WILDLIFE RESEARCH

Mr. Buckman, you are getting $2,384,000 less for your Wildlife, Range and Fish Habitat research, aren't you?

Mr. BUCKMAN. Yes, sir.

Mr. YATES. Will that help you streamline your activities?

Mr. BUCKMAN. Yes, sir.

Mr. YATES. Are you going to take a Ph. D. in operations as a result of this cut?

Mr. BUCKMAN. It represents, Mr. Chairman, a stretch-out in our range research programs and in our anadromous fish research programs.

Mr. YATES. A stretch-out, how far?

Mr. PETERSON. That depends on how long this reduction continues.

Mr. YATES. Well, it is going to continue. It is going to get worse, isn't it? How important is that research?

Mr. BUCKMAN. These, Mr. Chairman, are some of the priorities that Chief Peterson mentioned in the RPA. All of these are identified in the RPA program and we will request funds for acceleration when the budget climate permits.

ANADROMOUS FISH RESEARCH

Mr. PETERSON. Mr. Chairman, as we complete some ongoing research we will pick up some more anadromous fish research.

Mr. YATES. Is anadromous fish research a priority?

Mr. PETERSON. Yes.

Mr. BUCKMAN. Yes, sir.

Mr. YATES. Why is that a priority?

Mr. PETERSON. I think if you look at the opportunity to grow more fish in the Pacific Northwest and Alaska, and even some of the Lake States, the research that we have done so far indicates that you can grow a lot more fish in some of those natural spawning areas than you can building large hatcheries of various kinds.

Mr. YATES. Are you the fundamental researcher on this or is the Fish and Wildlife Service?

Mr. BUCKMAN. The Fish and Wildlife Service works on the fish themselves, their physiology, their diseases, and so forth. Our responsibility is for the habitat once the anadromous fish come into fresh water.

Mr. YATES. I see.

Mr. PETERSON. We do the basic research on gravel and all the habitats, yes.

Mr. BUCKMAN. And the consequences of forest practices on the streamside.

Mr. YATES. If the research stops, does that hurt the growth of the fish?

Mr. BUCKMAN. No, it does not hurt the growth of the fish but it may mean that our practices are less efficient or even in some cases counterproductive.

Mr. YATES. Does this hurt the economy of the States of Washington and Oregon?

Mr. BUCKMAN. It could. The salmon and steelhead are of great economic importance to the Pacific Coast States.

Mr. YATES. How important is your research to the welfare of the salmon and the steelhead?

Mr. BUCKMAN. We think, Mr. Chairman, that there should be a research program attendant with the action program. We anticipate a large action program on the national forest lands of the West.

Mr. YATES. When do you anticipate that?

Mr. BUCKMAN. It is starting now?

Mr. YATES. However, not as fast as you anticipated.

ANADROMOUS FISH PROGRAM FINANCING

Mr. PETERSON. In this budget we reduced both the national forest system side of anadromous fish and the research side.

Mr. YATES. It was reduced by roughly 22 percent, wasn't it?

Mr. PETERSON. Something like that.

Mr. YATES. It is a pretty steep cut, isn't it?

Mr. BUCKMAN. Part of that reduction, Mr. Chairman, was for range programs and part of it was for anadromous fish, about $800,000 for anadromous fish research.

EFFECT ON RANGELAND PROGRAMS

Mr. YATES. How important are your rangeland programs?

Mr. BUCKMAN. We think important, Mr. Chairman. The statement of policy for the RPA passed by the Congress called special attention to range programs. Here again, we have a small program. We will do the best we can with it and we will request funds when the budget situation permits.

Range research programs have been very small over the last 20 or 30 years, and we look forward to the opportunity for greater efficiency in range rehabilitation.

Mr. YATES. That is interesting. On one hand you are receiving funds to build up mining activities and energy development activities, you and the other agencies, and yet your funds are being cut which would help determine what effect this increased activity would have upon the fish in one instance of that and the rangelands on the other. You are caught in a whipsaw, really.

RESEARCH ACCOMPLISHMENTS AND NEEDS

Mr. PETERSON. That is correct. The thing we have going for us is the fact that Dr. Buckman pointed out. We have done some research earlier on coal so there is some information available.

Mr. YATES. Is that research completed?

Mr. PETERSON. That research contains a great deal of information about how you stabilize areas that are mined for coal.

Mr. YATES. That is good. Then you do not have to do any research over in the forest lands or over on the rangelands, is that right?

Mr. PETERSON. We have not covered all of the lands that are involved or all of the situations but we have covered several of them in these publications.

Mr. YATES. Of what value would the $2,384,000 be to you?

Mr. PETERSON. This would provide research specifically for areas of the country that we do not have a good research base.

Mr. YATES. Are we talking about being penny-wise and pound-foolish? In cutting back your research, are we cutting back possible economic growth?

Mr. BUCKMAN. Mr. Chairman, the RPA recognizes that new technology is one of our most cost-effective ways to increase productivity. We are also confronted with some very difficult fiscal and monetary policies in the country.

Mr. YATES. I recognize that. I have heard that before. The question I am asking is whether or not there is a connection between your research and building up the economies of, say, the Northwest and the West?

Mr. PETERSON. There is. The research, though, that you are doing in 1982 will affect the economy in maybe 1989 or 1990.

Mr. YATES. So we do not have to worry about it.

Mr. PETERSON. No. It means that we have to worry about it but you can defer some and pick it up later. The big problem in doing that is if you defer it and defer it and defer it then productivity suffers over time. However, we are trying to meet a particular budgetary constraint and there isn't any free lunch, is what it amounts to.

Mr. AUCOIN. Of course, inflation will be liquidated, Mr. Chairman, so it will cost less.

FUNDING OF FOREST PRODUCT UTILIZATION RESEARCH

Mr. YATES. Forest Products Utilization Research is being cut back. I had the impression that research was fairly important in your activity but apparently it is not, is it?

Mr. PETERSON. No. It is important. In fact, in putting together our budget we specifically did our best to hold research as close to the 1981 level as we could. We held it within about a million dollars of the 1981 level, which represents the importance we see in research.

RESEARCH BY PRIVATE INDUSTRY

Mr. YATES. Will private companies be taking up the research that you do not undertake? I have the impression from some of the speeches that I have read by the Administration people that it is anticipated that private companies and private business will expand their research programs to cover those that you do not do. Is that true?

Mr. PETERSON. We already do just a portion of the research and private industry and others do a lot of it. In the present economic climate I am not sure they would expand into it. In some cases they are already contracting because of the economic climate right now.

Mr. YATES. They are contracting, too?

Go ahead, Dr. Buckman.

Mr. BUCKMAN. Mr. Chairman, the kinds of research that I showed you here a few minutes ago are not likely to be taken up by private industry except in a very minor way because they cannot capture the benefits of that kind of research. There are too many spillover effects that they cannot capture.

Industry is likely to take a reasonably active role in utilization research, the question that you just posed, but they are not likely to do very much research that is risky, more fundamental, or research where they cannot capture the benefits very quickly.

Mr. YATES. Okay.

Mr. BUCKMAN. Mr. Chairman, I would like to say that I believe that this Administration is looking favorably on research. The Secretary of Agriculture actually has an increase in the Reagan research budget over the Carter budget for agriculture.

We have not had the opportunity to discuss this with him.

Mr. YATES. Do you mean for boll weevil research and research of that type?

Mr. BUCKMAN. Yes, sir.

Mr. YATES. It is too bad the boll weevil does not operate in the forest.

Mr. BUCKMAN. We have not had a chance to discuss this with Secretary Block yet, but he has been favorably disposed toward the research programs of the Department of Agriculture.

Mr. YATES. It is nice knowing that.

What else do you want to tell us about research, or have we covered everything?

RETENTION OF RESEARCH PROGRAMS AT CURRENT LEVEL

Mr. PETERSON. I think, Mr. Chairman, you hit on a key point earlier in that we are only spending about 5 to 6 percent of our budget on research. It is absolutely essential in my view that we keep a vigorous research program going if we are going to protect the land as we develop it, and if we are going to improve the productivity of that land.

RPA RECOMMENDATIONS FOR RESEARCH

Mr. YATES. What does RPA suggest for research?

Mr. PETERSON. RPA for research suggested substantial increases.

Mr. YATES. RPA has gone by the boards, hasn't it? Do you have the money to carry out the RPA at the levels you should have?

Mr. PETERSON. No, not at the higher levels.

Mr. LEISZ. Not all of the time. Some of them are near——

Mr. YATES. What was our average last year? Was it 80 percent or 70 percent?

Mr. LEISZ. It was 83 percent.

Mr. YATES. What is the recommended level this year?

Mr. LEISZ. It is variable. Some of the parts of the program are 100 percent.

Mr. PETERSON. RPA would call for a research budget of $169.7 million against $134.3 million so it is 79 percent of the RPA. I might point out that research in RPA as it originally was sent to the Hill, was the fastest-growing component of the Forest Service budget. However, it is I think fundamentally important not only to the management of national forests but to private land, to have a vigorous research program.

OPERATION OF THE FOREST SERVICE

Mr. YATES. You know what the budget figures are. What is going to happen to the Forest Service this year? Are you going to be operating the Forest Service with the funds available this year as well as you operated it last year?

Mr. PETERSON. The obvious answer is "No."

Mr. YATES. It is obvious to me but is it obvious to you, too?

Mr. PETERSON. Yes. I think, though, it is about a 10 percent reduction. We will do our best to streamline our operations. We will do our best to put people where they are needed the worst, and we think it is manageable although there will be some internal shifts of people. We will have to make shifts to reflect the need to put people on minerals activities and reduce acquisition and so on.

BACKLOG OF FOREST SERVICE PROGRAMS

Mr. YATES. We talked about two backlogs earlier. One is the reforestation backlog and you said you had enough funds to continue this in accordance with the 10-year program of the committee. Now we learn about the minerals backlog. Do you have any other backlogs in any other activity?

Mr. PETERSON. There are about three other kinds of needs that have built up over time that have not been met. One of them you are aware of is the GAO report on recreation facilities that relates to both us and the Park Service. We have tried to ask for more of our money in health and safety kinds of things for recreation.

The second kind of a backlog that has built up has to do with facilities. Most of our facilities, in fact many of our facilities were built during the CCC period and so we are reaching the point where we are going to have to start replacing those.

The third backlog that we have indicated in our data is land line location, identifying specifically where our land is.

FACILITIES CONSTRUCED BY CCC

Mr. YATES. When you talk about rebuilding the facilities that were built by CCC, what is the value of those? Do you have any idea of how much it would cost to replace them? Has the time come for another CCC for the children of this country?

Mr. PETERSON. I, of course, would have to admit to some bias on the subject but I think that the combination of giving work experience and getting facilities constructed has some appeal.

UTILIZATION OF THE YACC PROGRAM

Mr. YATES. Is this the YACC program? Is that an adequate substitute for it?

Mr. PETERSON. The YCC has some——

Mr. YATES. It is a limited summer program and it does good for the summer months. The YACC is permanent, is it not?

Mr. PETERSON. Yes.

Mr. YATES. Was the YACC permanent before they operated on the budget?

Mr. PETERSON. Yes. YACC is not ideally designed to do what we are talking about because it is not targeted enough toward the specific conservation work that we are trying to get done.

Mr. YATES. How should it be targeted? What should be done?

Mr. PETERSON. Again, as I say, I have to admit a certain amount of bias toward it. I think that in the first place the residential aspect of YACC costs a lot of money. In places where we have people that live near the work, we would not have to go into the cost of providing residential facilities.

I think in many places we do have enough unemployed people in the area to be able to do this kind of work. Therefore, I think if there is an objective to both reduce unemployment and provide important conservation work, that the national forests and the national parks are a good place to do that. I am not expert enough on the overall Government budget to know whether that is something that should be done or not.

Mr. YATES. I would favor it personally if we could work something like that out.

STATUS OF REGIONAL PLANS

What is the status of the nine regional plans which were supposed to implement the 1980 RPA program?

Mr. PETERSON. They will be out later this year, Mr. Chairman.

Mr. YATES. They will? Are they on schedule to meet the 1985 requirements?

Mr. PETERSON. They are now. They have been delayed a little bit. RPA was delayed getting to Congress. Congress modified the statement of policy so they were delayed somewhat but they are on target now.

TIMBER SALE CONTRACT EXTENSION

Mr. YATES. Would you place in the record the number of contracts you have extended for timber cutting and the percentage of the total contracts they represent?

Mr. PETERSON. Timber sale contracts?

Mr. YATES. Yes.

Mr. PETERSON. Yes, sir.

[The information follows:]

NUMBER EXTENDED TIMBER SALES CONTRACTS

The relaxed policy on timber sale contract extensions resulted in approximately the following totals:

Number of sales extended under relaxed policy	605
Total number of timber sale contracts (over $2,000 value)	11,667
Percent of total extended	5

AMERICAN EXPORTS OF LUMBER AND LOGS

Mr. YATES. I have read from this newspaper article earlier. The Japanese lumber importers are requesting a slowdown of the number of American exports of lumber. If there is such a slowdown, what impact will that have on the national forest sales for 1981 and 1982?

Mr. PETERSON. The best that we can understand about the import/export situation is that it is a pause on the part of the Japanese because of a downturn in their economy, also. I would expect that it might take a little bit of pressure off of next year but most people bidding next year, remember, are bidding for sales to be cut two or three years hence, and I would doubt it would have very much effect. We think that it is liable to affect log prices in the neighborhood of 5 to 10 percent.

Incidentally, I understand the Japanese expect to reduce purchases of both lumber and logs.

Mr. YATES. Just in logs?

Mr. PETERSON. No, both lumber and logs.

Mr. YATES. It should be both lumber and logs?

Mr. PETERSON. Yes, sir. Right.

Mr. AUCOIN. What is the volume of lumber exported from the forests at this point?

Mr. PETERSON. About 630 million board feet of lumber is expected in 1980.

Mr. AUCOIN. Thank you.

Mr. PETERSON. Against about 2.5 billion board-feet of logs.

ACCOUNTABILITY OF EXPENDITURES BY INDIVIDUAL TIMBER SALES

Mr. YATES. Does your system of accounting permit the allocation to individual sales of the money spent in support of such sales?

Mr. PETERSON. No, not in any scientific way.

Mr. YATES. Should it?

Mr. PETERSON. I do not know of any scientific way you can do that. For example, where fire protection expenditures occur, the only way of allocation is to prorate it based on acreage or something; the same thing with insect and disease control.

Mr. YATES. Could you do it for other costs?

Mr. PETERSON. We do do it for those that are fairly separable but there is insect and disease control, fire protection, general administration by the district and so on that are hard to separate into small areas.

TIMBERLANDS IN PRIVATE OWNERSHIP

Mr. YATES. It is contended that a million acres a year of privately owned timberland in the Southeast is being transferred to nontimber uses each year and that substantial amounts of harvested acreage are not being properly reforested in that area. Is that correct?

Mr. PETERSON. That is correct, Mr. Chairman. What has happened is that owners have harvested their softwood and sold it on today's market. There are a variety of reasons as to why they do not reforest. Some simply cannot see outlaying the amount of money that is involved to reforest it with a payback so many years in the future. Tax policy has been a significant disincentive to an individual owner because the owner could not charge off the cost of reforestation against moneys received from the sale of the trees.

If you got $10,000 for the sale of your trees and you wanted to spend $2,000 to reforest it, you could not deduct the $2,000 from the $10,000 and report a net income. The new Packwood bill of last year provides a way of getting both a tax credit and tax write-off over time. We think that will be a substantial help to get some of this land reforested.

Some owners simply do not realize they have nothing left on the site when they get through. In their view, they still have trees and some of them think that they are going to grow. Instead, they have stagnated trees that never will do anything.

It is a very serious problem, and a combination of education coupled with tax incentives is needed. One of our State and private thrusts in the RPA effort is to target on that problem and try to reduce it, working with the State foresters.

Mr. YATES. Do you think that is likely to help?

Mr. PETERSON. I am sure it is going to help but it is not going to come easy. I think the tax incentive will probably be one of the main things that has been done in that regard.

TIMBER RECEIPT ESTIMATES

Mr. YATES. Now let's turn to Forest Management and Protection. You estimate that your receipts for 1982 will be increased over 1981 by almost $743 million. How do you arrive at that? It is surprising because your sales offering is going to be same, 11.9 BBF.

Mr. PETERSON. In the year that you are talking about with the market way down, the harvest is way down. We do not collect the money until the timber is harvested so we are anticipating an upswing in the housing market and more trees being harvested. Prices are higher, remember. They are paying more money for it.

Mr. YATES. Is this likely to follow the same pattern that you had in the last two years? For example, in 1980 you estimated timber receipts at $879.2 million and you received $600.3 million. In 1981 you estimated the receipts would be $977.7 million and now you estimate that figure to be $742.9 million.

Mr. PETERSON. Mr. Chairman, if anybody has a crystal ball that can tell me what the economy is going to be in 1982 I would be glad to buy it. All I can say is, it is our best judgment at this point.

Mr. YATES. What about Mr. Weidenbaum and the Council of Economic Advisors and Mr. Stockman and all the others who say that our economy is going to flourish?

Mr. PETERSON. These numbers are consistent with that idea.

Mr. YATES. I see. You mean the reductions.

What is the basis for your increase? This is a 61 percent increase.

Mr. PETERSON. That represents the idea that they will both be cutting higher-priced stumpage and will be cutting more.

Mr. YATES. Suppose the housing sales do not pick up? Will they be cutting more?

Mr. PETERSON. No. If the housing market is still in the doldrums in 1982 this estimate will be too high.

SHORTFALL OF 1980 REVENUES

Mr. YATES. Has the shortfall in 1980 revenues had any impact on your program?

Mr. PETERSON. Yes, the shortfall in the 1980 revenues resulted in a $62.5 million shortfall in the 10 percent funds for roads. We currently have a supplemental up here requesting those additional funds. We will be in a lot of trouble if we do not get that money.

NEED FOR ROAD SUPPLEMENTAL

Mr. YATES. Tell us why you will be in trouble.

Mr. PETERSON. Well, right now as we are entering the field season we must go ahead and hire field crews to prepare sales for the future. If we wait until we get the supplemental to hire them we will have lost a big part of the field season, so we have to sort of gamble that the supplemental is in fact coming along.

In fact, we will be sending up in the next week or so a deficiency apportionment notification that we are spending at a rate we cannot sustain for the year. We have advised our field to go ahead and spend that money and they will run out, probably around the first of July.

Mr. YATES. Suppose the Congress is in a budget-cutting mood? What happens then?

Mr. PETERSON. We will have to have an abort situation in July.

We do not have very many options. We either have to go ahead and hire the field crews or we simply cannot make the sales. We have to bet on it, so to speak, or not hire those crews. We have told our field to go ahead and hire the crews and go ahead and do the work.

POTENTIAL REDUCTION OF TIMBER OFFERINGS

Mr. LEISZ. Mr. Chairman, if we fail to undertake that work during the next few months we will be down in timber sales the following year by at least a billion board feet. We would be unable to recover the bulk of that volume in fiscal year 1983.

Mr. PETERSON. That chart I showed you this morning showed stumpage prices. If we reduce the sale quota by a billion feet, there would be a mad scramble for that which is made available.

Mr. LEISZ. That figure, Mr. Chairman, is for 1982, fiscal 1982. What is the impact for 1983?

Mr. YATES. No, that is the supplemental you are talking about.

Mr. PETERSON. I am talking about an 1981 supplemental.

Mr. YATES. That is right.

Mr. PETERSON. What Mr. Leisz is saying is that we would fall at least a billion board feet short in 1982 because a lot of the preparation we are doing now is for 1982 sales. We would also not be able to award some sales this year and we are trying to get a size-up from the field on what that would be. It would likely be at least a half a billion feet that we could not sell this year.

Mr. AuCoin. Therefore, you add that to the billion in 1982.

Mr. Peterson. It is a significant impact.

Mr. Leisz. There will be some impacts in fiscal 1983 as well.

Mr. AuCoin. What do you anticipate those might be?

Mr. Leisz. I do not recall what they were but we did have some projections, and it seems to me it was between three quarters of a billion and a billion board feet.

EFFECT OF SHORTFALL ON FEDERAL BUDGET

Mr. AuCoin. If that scenario were to come to pass what would be the impact on the Federal budget with that much of a shortfall? Can you quantify that for me?

Mr. Peterson. Well, the Federal budget would be the net loser, of course. We are talking about a two or three dollar loss in returns to the Treasury for each dollar invested in sale preparation.

Mr. Yates. What is your normal lapse rate?

Mr. Peterson. In funds or personnel?

Mr. Yates. Personnel.

Mr. Peterson. I think around 5 percent.

Mr. Yates. You have not had a normal lapse rate in funds, have you? We have been giving you more funds than you have been asking for.

Mr. Peterson. We basically do not have any lapse rate in funds.

Mr. Yates. Yes. What is your average lapse rate on personnel?

Mr. Peterson. It is about 5 percent.

Mr. Yates. Is that the rate projected for your fiscal 1982 budget?

Mr. Peterson. Yes, sir.

EFFECT OF REDUCTION ON TEMPORARY EMPLOYEES

Mr. Yates. What about temporary employees and the level of pay they receive? Is there a change in policy respecting that?

Mr. Peterson. No, sir.

Mr. Yates. What happens to your temporary employees. I know you are losing 129 permanent positions. What happens to your temporary employees?

Mr. Peterson. In 1982 under the Civil Service Reform Act we go to a full-time equivalent basis on other than permanent full-time and we will go from about 52,000 full-time equivalents in 1980 to about 47,000 in 1982 under the current budget, reflecting a decrease in land acquisition, YCC, YACC, and so on. The end-of-the-year employment for other than permanent full-time at the end of 1982 is 27,400.

EFFECT OF BUDGET REDUCTION ON FIREFIGHTING

Mr. Yates. Is your firefighting activity hurt by the new budget? It would be well if you did not have any fires, wouldn't it?

Mr. Peterson. Yes, it would be well. Are you talking about the national forest side of fire funds?

Mr. Yates. Yes.

Mr. Peterson. The primary cutback in fire funds is in the fuels management activity, a $2.7 million cutback in the revision that is before you now. You are aware that we have an FFF expenditure request up here before you now, fighting forest fires.

Mr. Yates. That is true, yes.

Mr. Peterson. We are facing what could be a significant problem this spring in that the South and the Southwest are very much in a situation that is way above normal in terms of fire danger.

Mr. Yates. Because of the droughts?

Mr. Peterson. There is a substantial fire buildup in the Southeast and the Southwest and the far Pacific Southwest. We plan our protection forces on the basis of an average season. This season does not look like it is going to be average. We very likely will run out of normal fire protection funds before we get to October 1. We will have to advise you on this because we normally have had an agreement with you not to spend fighting forest fire money for this kind of special work. However, the long-range forecasts right now do not look very good for this summer and fall.

Mr. Yates. There isn't much difference between the Carter and the Reagan budgets on this, is there?

Mr. Peterson. No. That is correct.

AIR TANKER COSTS

Mr. Leisz. Our difficulty there is that costs have gone up. Our contract costs have gone up substantially.

Mr. Yates. How much is "substantial"?

Mr. Leisz. I would have to check that and provide the information for the record.

[The information follows:]

Airtanker Cost Increases

Airtanker costs have two major components, "availability" and "use". Availability for the mandatory period can be estimated closely once contract awards are made. Availability before and/or after the mandatory period due to unanticipated fire activity, however, adds to these costs.

Use costs cover contractors direct operation costs of flying, such as fuel, crew bonus, maintenance and overhaul reserve, crew travel and like items. These are paid as fixed rates per flying hour for each airtanker capacity class. These payments are directly affected by fire activity and are consequently unpredictable and usually require separate supplemental funding from the Fighting Forest Fires appropriation.

Airtanker costs are as follows:

	1980	1981
Number of airtankers	47	44
Mandatory availability costs	$2,864,190	[1] $3,577,079
Pre- and postseason availability	191,396	[2] 222,921
Total availability	3,055,586	[2] 3,800,000
Use costs	5,889,734	[2] 6,130,000
Total costs	8,945,320	[2] 9,930,000

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[1] The testimony by Peterson at the time of the hearing was 37 airtankers. Since that time there have been changes in types of airtankers for which contracts were awarded, making a total of 44 (Increase in cost over 1980 reflects substantially higher daily availability bids for 1981).

[2] Estimates.

Mr. PETERSON. Just to give you a round number, we wanted 45 air tankers. Based on our estimate of what 45 air tankers would cost, which was what our budget was based on. It turned out we can only afford 37 at that amount. The difference between 37 and 47 is the inflation related to fuels and other costs. It represents about a million dollars in money.

Mr. YATES. Let's hope you do not need the other seven air tankers.

REPROGRAMMING REQUEST

Mr. PETERSON. Mr. Chairman, I think we will have a reprogramming request up to you within the next week or so.

Mr. YATES. Where are you going to get the money?

Mr. PETERSON. We are looking at that right now but we probably will have a reprogramming request up to you for the air tankers, for minerals, for some Alaska lands——

Mr. YATES. Why a reprogramming rather than a supplemental?

Mr. PETERSON. We are using funds that have not been completely agreed to yet, or I should not say agreed to, it just has not gone through all the processes.

Mr. YATES. Do you mean with OMB?

REPROGRAMMING ALASKA LANDS ACCOUNT

Mr. PETERSON. We have saved some money by setting up the new special Alaska lands account from receipts. There was some money in the 1981 budget that was planned for Alaska. That money would not now be spent in Alaska because we have a special fund, and we propose to reprogram some of that money.

Mr. YATES. How much is it?

Mr. PETERSON. The total will likely be about $23 million.

FIRE FACTOR IN ALASKA

Mr. YATES. What about the fire factor in Alaska? I do not remember ever reading about fires in Alaska. Do they have any up there?

Mr. PETERSON. No, this was not for fires in Alaska.

Mr. YATES. I know that.

Mr. PETERSON. Yes, they have very large fires, particularly in interior Alaska where access is quite difficult.

Mr. YATES. Is that so?

Mr. PETERSON. Yes.

Mr. YATES. Are they caused by lightning?

Mr. PETERSON. They are lightning fires, all kinds, some that are caused by people. I was there about three years ago and I saw from an airplane at one time about three major fires. Each one of at least 20,000 acres, so they get very large fires in interior Alaska.

Mr. YATES. Do you have the facilities to fight the fires up there?

Mr. PETERSON. They are largely of course on Bureau of Land Management land but there is an interagency agreement up there to help out on those fires.

ALASKA LANDS REPROGRAMMING

Anyway, I am just advising you in advance that this reprogramming will be coming up. That we will in fact have it up to you.

Mr. **Yates**. I will prepare myself for it.

Mr. **AuCoin**. Mr. Chairman, what portion of that $26 million reprogramming will go for roads or salvage sales operations?

Mr. **Peterson**. At this point we are proposing to reprogram about $13.1 million in the Mount St. Helens salvage, of which over $9 million are going to roads.

Mr. **AuCoin**. Where will the balance of that $13 million go?

Mr. **Peterson**. It goes into a lot of things like increased fire protection, sale administration, sale preparation, handling the increased public use there. I could give you a breakdown if you would like to have it.

Mr. **AuCoin**. Would you give us the breakdown?

Mr. **Peterson**. Yes, sir.

[The information follows:]

Alaska Reprogramming of $13.1 Million for Mount St. Helens

[In thousands of dollars]

Forest management, protection and utilization:	
Sales Administration	109
Road and trail maintenance	2,675
Subtotal, FMP&U	2,784
Construction and land acquisition:	
Fire, administration and other construction	573
Road construction	9,712
Subtotal, C&LA	10,285
Total	13,069

Mr. **AuCoin**. You are dealing with $13 million in carryover funds for the same purpose, is that not right?

Mr. **Peterson**. Yes.

Mr. **AuCoin**. What portion of that has gone into road construction?

HELISTAT

Mr. **Peterson**. In the first place, you recall that there was $4.6 million of that $13 million that was earmarked for the Helistat.

Mr. **AuCoin**. For what?

Mr. **Peterson**. For the Helistat development?

Mr. **AuCoin**. Can you tell me what that is?

Mr. **Peterson**. That is the large combination of balloons and helicopters for use in lifting logs. It is planned for use on some of the Mount St. Helens salvage if we can complete the testing. About $4.6 million went into that.

MOUNT ST. HELENS CARRYOVER FOR ROAD CONSTRUCTION

On roads, of the $13.4 million carryover about $4.3 million goes into roads, about $1.9 million into permanent road and bridge construction and about $2.4 million into temporary roads and bridges.

Mr. AuCoin. Only $4.3 million goes into roads out of the $13 million carryover?

Mr. Peterson. Yes, sir.

MOUNT ST. HELENS CARRYOVER FOR BRIDGE CONSTRUCTION

Mr. AuCoin. How much for bridges?

Mr. Peterson. It is $2.4 million for temporary roads and bridges. And $1.9 million for permanent roads.

Mr. AuCoin. How many permanent bridges does the $1.9 million category cover?

Mr. Peterson. I think it is only one major bridge, if I recall, possibly two.

Mr. AuCoin. How many temporary bridges?

Mr. Peterson. There are quite a few of those. I would guess there are four or five, as I recall. They are these portable military-type bridges, where they put in permanent piers and put in a temporary bridge which will be taken out during the wintertime.

Mr. Leisz. What we have been doing is buying just so many lineal feet of bridge because you can extend those for varying distances and then they will be picked up and removed at the end of the logging season so that the structures are not lost over winter.

TIMBER SALVAGE

Mr. AuCoin. How many board feet of downed timber at Mount St. Helens can be salvaged with $4.3 million going to road construction?

Mr. Yates. Going to what construction?

Mr. AuCoin. Of the $13 million carryover fund, $4.3 million is going into road construction. I would like to know how much timber can be salvaged with those funds.

Mr. Yates. Didn't I read somewhere that it was proposed that the timber would be left on the sides there?

Mr. Leisz. There is a core area that our preferred environmental statement alternative suggests leaving.

Mr. Yates. That is what I thought I had read, yes.

Mr. Leisz. We would couple the proposals for reprogramming with the additional $9 million in road construction and that would give us total access for harvest of about 400 million board feet for Mount St. Helens.

Mr. AuCoin. Reprogrammed funds plus what we will use for roads out of the carryover funds will produce——

Mr. Leisz. About 400 million board feet.

Mr. Peterson. There is about 450 million that we would like to salvage this year and next, and that 450 million would take about $25 million altogether in appropriated road money.

Mr. AuCoin. It would take how much?

Mr. Peterson. It would take about $25 million. What Mr. Leisz is telling you, with the $13 million we hope to open up the main roads and to start that activity this year and complete it next year.

We do not have, in all fairness, a complete analysis of the financial situation in the region right now. We do not know how much money we might be able to get anywhere else in the Forest Service to help towards that $25.2 million need. The $25.2 million is the forest road and trail total need of which we can see about $13 million on hand right now, and we are still trying to find some more.

Mr. AuCoin. That counts the reprogrammed funds from Alaska?

Mr. Peterson. Yes, sir.

Mr. AuCoin. And the carryover funds?

Mr. Peterson. It counts the $9 million from Alaska and the $4.3 million coming from the carryover for roads.

VOLCANO EMERGENCY COORDINATION CENTER

Mr. AuCoin. How much of the carryover funds is the Volcano Emergency Coordination Center taking?

Mr. Peterson. That activity has pretty much been phased into the normal national forest operation and I do not have that broken down separately but I would say that is less than $100,000.

BREAKDOWN OF MOUNT ST. HELENS CARRYOVER DOLLARS

Mr. Peterson. To give you the rest of the breakdown, there is about $2.1 million in sales administration and management, $950,000 in recreation use, $100,000 in wildlife and fish habitat, $200,000 in soil and water, and so on. I can gave you this detailed breakdown if you would like to have it.

Mr. AuCoin. I would like to have it.

[The information follows:]

BREAKDOWN OF TOTAL MOUNT ST. HELENS

[Dollars in thousands]

	Fiscal year 1980 carryover	Alaska reprogramming	Fiscal year 1981 Prop. Supplemental	Total cost
Forest management, protection and utilization:				
Research	$85		$1,000	$1,085
National Forest System:				
Minerals management	117			117
Landline location			300	300
Fire protection	384		1,000	1,384
Sales administration	2,163	109	2,400	4,672
Helistat development	4,600			4,600
Reforestation	487		100	587
Recreation	954			954
Wildlife and fish	104		200	304
Soil and water management	212		700	912
Road and trail maintenance	2,424	2,675	1,100	6,199
Subtotal, NFS	11,530	2,784	6,800	21,114
Construction and land acquisition:				
Fire, administration and other construction		573		573
Road and bridge construction	1,912	9,712	9,100	20,724
Subtotal, C&LA	1,912	10,285	9,100	21,297
Total	$13,442	$13,069	$15,900	$42,411

Mr. AuCoin. Would you tell me again what the $25.2 million in roads would produce by your estimate?

Mr. Peterson. About 450 million feet in the two years.

Mr. AuCoin. You have $12.3 million in reprogrammed funds from Alaska and carryover funds that you think will produce 400 million board feet. Why do you have to double that in order to get——

Mr. Peterson. That is the reason I came in on that one. I am not sure at this point that we can get 400 million with that $13.2 because it depends on how much we can pick up in purchaser credit, also. See, that is the other side of that coin.

Mr. Leisz. The other thing we should add, the rest of the road work, while it sets up the other 50 million feet initially it lays all of the groundwork to pick up the difference between 450 million feet and the 771 million that would be available if we end up selecting the preferred alternative.

Mr. AuCoin. Let's just assume you can get 400 million board feet. You are still at slightly more than half of what needs to be salvaged.

Mr. Peterson. That is right.

Mr. AuCoin. On this schedule, how long are we going to wait to get that downed timber out of there and to what degree are we raising the risk of disease or fire?

Mr. Leisz. I went through this in detail. We had two of the people from the region in just the end of last week. This $25.2 million level for road funding and the 450 million that would be associated with that is the most aggressive picture that we can offer in going after that volume. That will take care of the total 771 million removal in the next 3-year period if we are successful with that road program as laid out. We must do that this year or we will start to slip into a period of time where the timber will begin to deteriorate.

Mr. AuCoin. Biologists have told me that even a 3-year wait runs the risk of a serious amount of loss from disease or potential fire.

Mr. Housley. By the end of the 1985 logging season we could have lost as much as 55 percent of that volume if we do not have it harvested.

Mr. AuCoin. Fifty-five percent?

Mr. Housley. At that time, yes, sir; and 40 percent by the end of 1984.

Mr. Peterson. What our people would like to do is to complete the main road system. The front-end money would be used for the main road system this year and make the initial 200 million feet of sales this year, and then make another 250 million next year, which will put about the maximum volume of traffic on those main roads that can be carried.

As Mr. Housley is saying, we would then complete all of the salvage within five years and most of it within the first two and a half years.

Mr. AuCoin. "Most" being how much of the total?

Mr. Peterson. Well, this is the hardest number to get a handle on because it depends on what is happening in the markets in that area. We also may have a technical problem in that, if some of the purchasers elect the small-purchaser option and turn back roads, that could delay salvage.

Mr. AuCoin. How would that work?

PURCHASER ELECTION ON MOUNT ST. HELENS ROADS

Mr. Peterson. Well, you remember under the National Forest Management Act they have a prerogative of electing to have the Forest Service construct the roads. If they turn the roads back to us to construct them and we have to go get wage rates and advertise a formal public works contract, you are probably talking about another 120-day delay at least. We are concerned that this might happen on a key road that is needed to get to somewhere else.

Mr. AuCoin. What would that interdict?

Mr. Peterson. That would interdict the normal flow of traffic. That is a timber purchaser right under the 1976 National Forest Management Act.

Mr. AuCoin. Mr. Chairman, may I explore this a couple of minutes more?

Mr. Yates. Sure.

Mr. AuCoin. If this committee is concerned about getting the maximum amount of salvageable timber out of there as quickly as we can within the means we have, what can we do about that problem and other problems?

Mr. Peterson. I think a case could be made that at least on some roads and for some sales that are essential to get to other timber that that option should not be available. I do not mean it should not be available anywhere in the sale but at least on key access to other places where you are going to interdict something else.

I do not think anybody ever thought about a major timber salvage like this when that provision was put in. However, I have checked with our counsel and they have advised me that under current law it is a right and if we advertise a contract without that provision, a purchaser could object.

REPROGRAMMING FUNDS FOR MOUNT ST. HELENS

Mr. Yates. Would you yield for a question on that point?

Is there anything in this budget to salvage Mount St. Helens timber?

Mr. Peterson. What we are discussing now is the reprogramming request that we expect will be up here shortly. There is no money in the budget.

Mr. Yates. Is there nothing in the budget nor in the request for a supplemental?

Mr. Peterson. That is right.

Mr. Yates. When did you decide to have a reprogramming request?

Mr. Peterson. Well, I think you will recall when we were up here last spring Mount St. Helens had just happened. We had no plan for the area. We have just issued a draft plan right now and we did not put anything in the 1982 budget because we simply did not know what to put in there at that time.

We will adopt that plan for Mount St. Helens later this summer. At that time we will know specifically what the salvage requirements are. In the meantime, we are proposing to move ahead with about 200 million feet of salvage this year that does not interfere with any of the options that are laid out.

Mr. YATES. Where will that money come from?

Mr. PETERSON. That is proposed to be reprogrammed.

Mr. YATES. How much money would you propose?

Mr. PETERSON. There was some carryover from last year, about $13 million.

Mr. YATES. Will you have to use more than that for the salvage operation?

Mr. PETERSON. Yes, we will.

Mr. YATES. Do you have any idea how much more?

Mr. PETERSON. We will initially come up with a request to reprogram about $13.1 million additional to go into that activity.

Mr. YATES. Do you think that will be adequate?

Mr. PETERSON. We are now looking at any other sources of funding within the Forest Service. No, that will not be adequate. We may be able to spend from elsewhere.

Mr. YATES. OK.

Thank you.

PURCHASER ELECTION LANGUAGE

Mr. PETERSON. On your specific question of how we deal with our small purchaser option, it would take some type of direction, legislative direction. We do not have administrative discretion to say we will not do that, as I understand it from our counsel. I expect it would have to be in the Appropriation Act itself, since it is dealing with an act of Congress. I would be glad to have our counsel consult with you all on that point.

[The information follows:]

PROPOSED MOUNT ST. HELENS PURCHASER ELECT LANGUAGE

The language proposed as a rider to the Mount St. Helens Supplemental reads as follows:

If the Secretary determines that such action will facilitate the salvage of timber damaged by the eruption of Mount St. Helens, he may waive Section 14(i) of the National Forest Management Act of 1976 (15 U.S.C. 631) on timber sales within the damaged area.

ROAD FUNDS NEEDED FOR MOUNT ST. HELENS

Mr. AUCOIN. You indicated that the reprogrammed funds and the carryover funds would be enough to lay the basic infrastructure of the road system for the total salvage operation. Did I understand you correctly?

Mr. PETERSON. That is providing we can also find some money elsewhere in the Forest Service to help that effort, which we are presently trying to do. The total need is about $25 million.

Mr. AUCOIN. I am just trying to get what you can accomplish with $9 million of the $13 million reprogrammed from Alaska and the $4.3 million of carryover funds. What is that going to buy in the salvage area?

Mr. PETERSON. Are you familiar with those main north and south roads east of Mount St. Helens? I have a map here. Maybe if we could pass that map to you I can read you the numbers.

The money that we are talking about now would install a bridge at Eagle Cliff. Do you know where that bridge is down there across the reservoir?

Mr. AuCoin. Yes.

Mr. Peterson. We would also install the Pine and Muddy Arrow bridges. That is primarily with carryover money.

Mr. AuCoin. All three of those bridges would be built with the carryover funds?

Mr. Peterson. No, just Eagle Cliff with the carryover money. $1.2 of that is for Eagle Cliff.

Mr. AuCoin. How are you going to build the other two?

Mr. Peterson. The others would be built with some of this reprogramming money.

Mr. AuCoin. Therefore, in total all three would be built, then, with a combination of those funds.

Mr. Peterson. Yes.

Mr. AuCoin. What will be the total cost?

Mr. Peterson. The installing of the bridges, all of the design, and opening of roads 125 and 90 which you see there, would cost $4.5 million. Then it would cost $9.7 million to open up the additional roads, which is what Mr. Leisz is talking about, to provide access back to that area.

Mr. AuCoin. Are those roads designated on the map?

Mr. Peterson. Yes. Those are roads 125-R, 917, 115, and part of 100.

Therefore, with the carryover money basically and the money we propose to reprogram, we provide the basic access back into the area for the 400 million. That is what Mr. Leisz is talking about. Now we have to go further than that to get the next increment but that at least gives us the front-end money that we need to get in there. In order to complete the salvage operation there, we think it will run about $25 million altogether.

Mr. AuCoin. The entire job will cost $25 million?

Mr. Peterson. That is correct, $25 million altogether, counting the carryover.

TIME NEEDED FOR MOUNT ST. HELENS TIMBER SALVAGE

Mr. AuCoin. That timber has been down for what, a year now?

Mr. Peterson. One year.

Mr. AuCoin. How many years will pass until the 400 million board feet is salvaged.

Mr. Peterson. Some of it has already been salvaged, of course. We have some sales there now. We would expect that 400 million to be out within about 3 to 5 years.

Mr. AuCoin. The first 400 million?

Mr. Peterson. Right.

Mr. AuCoin. What happens to the second 400 million?

Mr. Peterson. Well, the second 400 million, some of that will go out simultaneously, you see, as we sell it in 1983 and 1984. As I understand the deterioration situation, the Douglas Fir does not deteriorate as fast as hemlock and some of the other species. It would be desirable to get it all out within about 4 years.

Mr. AuCoin. I have heard 3 years.

Mr. PETERSON. It would be highly desirable to do it in three, if you could just have your druthers, but we do not see with the access system in there and with the capability of handling those mills, that it can be gotten out in three. We think quite a bit of it will be out in three, somewhere between 300 and 400 million will be out in three. The balance will be out probably in another two to three.

Mr. AUCOIN. Therefore, it could be at least six years.

Mr. PETERSON. Before the last comes out, right.

DETERIORATION OF MOUNT ST. HELENS TIMBER

Mr. AUCOIN. What is the deterioration analysis that you get from your scientific folks on those stocks, those species of timber that are down?

Mr. PETERSON. We have that, and incidentally that is the way they set this access situation. They looked at slower rates of access and heavier deterioration and so on. This particular alternative that I am giving you, this $25.2 million of front-end cost, gives a net return of $103 million to the Treasury. Anything faster than that or slower than that is not as good economically when you crank in the deterioration.

Mr. AUCOIN. Can you tell the committee either now or for the record what percentage of this total acreage will be lost by the end of the time frame that you describe?

[The information follows:]

PERCENT DETERIORATION OF DOWNED MATERIAL ON MOUNT ST. HELENS

The rate of deterioration by years is estimated to be as follows:

Year	*Percent*	*Year*	*Percent*
1981	6	1984	40
1982	14	1985	54
1983	24	1986	75

Mr. PETERSON. We can give you this total amount but we will have to estimate when they might bring it out. It will be very little now and up to about 55 percent at the end of 5 years. If you took an average, you are talking about 20 percent or so deterioration depending on how fast they haul it out.

I guess the bottom line, Mr. Chairman, is that there is a need from the standpoint of fire, from the standpoint of insects and from the standpoint of just good business for the Government to get that salvage done as rapidly as feasible. We are moving as fast as we can to complete the plan. Public comments are being received now on the alternatives and we will adopt a plan later on this summer but in the meantime we are going to go ahead on this 400 million feet of salvage. We have already sold about 45 million feet.

Mr. AUCOIN. Mr. Chairman, I have one last question on the Mount St. Helens salvage problem, and wish to say that I have very real concerns about the timetable that you are talking about. A 6-year timetable seems to suggest just a major loss of salvageable timber. It is a point we can pursue and I intend to pursue later. I have major qualms about the amount of fiber we are losing that could be going to productive purposes. Apparently, the OMB figures that have been laid down put you in that constraint.

COST OF THE VOLCANO EMERGENCY COORDINATION CENTER

The last question that I have has to do with an article in The Oregonian on the 29th and that related to my question about this Volcano Emergency Coordination Center. The article quotes Phil Perry, is he your Assistant Engineering Director for Region VI?

Mr. PETERSON. Phil Hirl?

Mr. AuCOIN. The article quotes him, and that quote indicates that almost all of the $13 million in carryover funds will be committed to the costs of the Volcano Emergency Coordination Center and various other programs separate from road improvements. The implication from the article is that the center is going to take a major amount of that money.

Mr. PETERSON. I think he was trying to explain that more than half probably will go for purposes other than roads, which is true, but the biggest single item for that is $2.1 million for sale administration and management. I have given you the other items. I think what he is really saying is, that it is nonroad kind of items.

ROAD CONSTRUCTION FUNDS

Mr. YATES. Mr. Regula.

Mr. REGULA. Thank you, Mr. Chairman.

Mr. Peterson, I would like to ask you a couple of questions on roads. I understand that the road budget is down in the proposed fiscal 1982 budget. Is that correct?

Mr. PETERSON. That is correct, yes.

ROAD CONSTRUCTION STANDARDS

Mr. REGULA. As I understand it, many times you have built roads on a multipurpose basis and built them to a higher standard than would be required for the removal of timber or for a timber sale. Will you be able to accommodate to a lower budget by building the roads to a lesser standard and still meet the market demands?

Mr. PETERSON. That is our plan, to review everything we are doing in roads to be sure we need to reconstruct. In some places if there is an old road there it might be technically economical to reconstruct but in this day when money is hard to come by, if the road is still useable and we can use it without damage. We may have to restrict the time of year it can be used. We will go ahead and use that road, and not reconstruct.

We will also examine all of the specifications. For example, with increasing demand for firewood we may do less cleanup along roads and let the material be left. Therefore, it is a complete review of everything that we have done and we have told the regional foresters that we want them to save 10 percent, which is a pretty healthy sum. I think we can do that.

LEVEL OF TIMBER SALES

Mr. REGULA. Can you still maintain your level of sales?

Mr. PETERSON. Yes, sir. That is what we are planning to do. Now I have to admit there is some chance we are going to be dealing with a higher proportion of our sale program in roadless areas than we have had heretofore because we stayed out of roadless areas. In some places we are talking about primary access where there are no roads and where the roads have to be put in very carefully. It is going to be a challenge for the field to find ways of doing this but I think that they will do it okay.

PURCHASER ROAD CONSTRUCTION

Mr. REGULA. Don't you have some sales where the bidder understands that road construction is part of the consideration for the sale?

Mr. PETERSON. The general practice is that we appraise a sale as if the roads are already in place.

Mr. REGULA. Yes, I understand that.

Mr. PETERSON. Then as he builds the road he gets credit towards the price of the timber. That is the general practice.

Mr. REGULA. Therefore, the budget constrictions on road-building would not affect your ability to have sales where the purchaser is building the road as a part of the sale consideration.

Mr. PETERSON. No, that is also a budget item. The 1974 Resources Planning Act made purchaser credit subject to appropriation restrictions so it is also controlled by the appropriation level.

Mr. REGULA. Therefore, you cannot deal with it.

Mr. PETERSON. Even though there is no money that actually changes hands, it is technically an appropriation item.

CLEARCUTTING PRACTICES

Mr. REGULA. Under forestry practices, are you still following clearcutting patterns and have they been working well?

Mr. PETERSON. We are following direction under the 1976 National Forest Management Act which says we may use clearcutting where it is clearly the best technique to use. We have provided guidelines on the size of clearcuts, the shape of clearcuts and so on. That particular controversy seems to have simmered down quite a bit.

Mr. REGULA. Yes, that is my observation.

Mr. PETERSON. I think it is a combination of things. I think we are doing a better job than we were, and there is a better understanding of what is happening, too.

Mr. REGULA. Is it your common practice now to clear the slash and reforest in clearcut areas?

Mr. PETERSON. We remove slash where it is necessary to prepare the site for replanting. In some places it is not necessary. There may not be that much slash. In other areas it is necessary to burn or somehow get down to mineral soil, such as in douglas fir country. Therefore, we do whatever we have to do on the particular site to prepare it.

FOREST REGENERATION

Mr. REGULA. Has your research program enabled you to get a better growth by better techniques?

Mr. PETERSON. Yes. In fact, I probably ought to have Dr. Buckman explain this. We did have a considerable reforestation problem in the Pacific Northwest which has mostly been overcome.

Mr. BUCKMAN. Forest regeneration has been a major inquiry of forestry research for, I suppose, the last 30 or 40 years. We continue to, as we open up new areas or address new problems, find additional difficulties. There is a serious regeneration problem, for example, in southwest Oregon and we have merged our efforts with those of Oregon State University to try to find less costly and more reliable ways of regenerating the forests in that part of the country.

We also have a serious regeneration problem in the Deep South. Hardwoods are tending to replace the pine forests and we have redirected substantial parts of our efforts into solving that problem.

Mr. REGULA. When you say both in Oregon and the South you have a serious regeneration problem, is this one of waste trees coming in?

Mr. BUCKMAN. In the Pacific Northwest it is less desirable trees and shrubs. In the South it is hardwoods, oaks and sweet gum, species that really are not as fast-growing or as valuable as the pines.

Mr. REGULA. With burning and clearing of slash and planting, you still cannot get ahead of the weed trees, can you?

Mr. BUCKMAN. If we burn and plant, yes, we can. In fact, that is one of the techniques for getting around the problem in the South and in the Northwest, too.

USE OF HERBICIDES

Mr. PETERSON. In some of the stands there, even though you can plant and get the trees started you may have to do some kind of release work to get them up above brush. There enters some of our current controversy on the use of herbicides in Oregon.

Mr. REGULA. Do you have herbicides which can be selective if used over an area that has been regenerated?

Mr. PETERSON. Yes, that is what they are. They are selective. They do not adversely affect some kinds of trees but they take care of the brush so that the trees get a start. They are selective.

Mr. REGULA. I suppose you get some opposition to that.

Mr. PETERSON. Yes, sir.

Mr. REGULA. It cannot be a bad one, so it must be one that is available on the EPA list.

Mr. PETERSON. It is an EPA-registered herbicide. I think the big problem has been the public association of those chemicals with, say, chemicals that were used in Vietnam.

Mr. REGULA. Agent Orange?

Mr. PETERSON. Agent Orange was never registered for use in this country and never was used legally in this country, certainly not by the Forest Service.

Mr. REGULA. I am surprised that you are having a problem because, as you well know, this is being done extensively on agricultural land, and I am sure you use the same type of herbicide. There seems to be no objection to using it on agricultural lands, and these are certainly far more urbanized areas.

Mr. PETERSON. We are using chemicals that are used every day on people's lawns and are applied several times a year. We apply them once in 50 years on a forest and they are controversial. It is a little bit difficult to fully understand why.

RESEARCH ON TISSUE CULTURE

Mr. Regula. Well, I suppose it is like clearcutting. You have a period of adjustment.

Dr. Buckman, I am interested in what your progress has been on tissue culture because it appears to me to be a way to make a rather quantum leap in terms of developing vastly improved species.

Mr. Buckman. We are not doing very much work, Mr. Regula, on tissue culture. It is high on our priorities for later research. Tissue culture is being addressed by one or two of the forest industries and by some other laboratories, the agricultural laboratories, and I think some successful techniques have been developed for agricultural crops.

However, we have not done very much with tissue culture in forestry with one or two exceptions. We have been able to grow whole trees out of needle fascicles. Imagine a pair of needles and with the right growth regulators we can grow that needle bundle into a whole tree, but we still need to develop better and more reliable techniques.

I think an equally fascinating area in genetics has to do with genetic engineering or the use of recombinant DNA to fix into trees some properties that we would like, such as insect and disease resistance, or the ability to fix nitrogen or things of that sort. That field is just now beginning to grow and it has to be adapted to forestry as well as agriculture.

Mr. Regula. You are suggesting that DNA-type techniques have a great potential in developing superior species of trees?

Mr. Buckman. Yes.

Mr. Regula. Is the private sector involved in that, such as Georgia Pacific or Weyerhaeuser?

Mr. Buckman. Not that I know of but there are private laboratories that are involved with microorganisms and recombinant DNA. You may have read that we may have an organism now that can synthesize insulin. I think that is done by a private laboratory.

COOPERATIVE RESEARCH EFFORTS

Mr. Regula. Do you coordinate your research in the Forest Service laboratories with the private sector to avoid duplication?

Mr. Buckman. Yes, sir, and with the forestry schools.

Mr. Regula. I was going to ask, do you utilize places like the University of Montana?

Mr. Buckman. Yes, we do.

Mr. Regula. Do you do this by contract?

Mr. Buckman. A small part of our research budget is handled by contracts and grants, about 9 percent. We also have coordinating mechanisms with the 61 forestry schools in the country and our programs are closely coordinated.

We also invite industry to review our programs from time to time. The industry often does not tell us about their proprietary research but they tell us about their nonproprietary work, which is extremely valuable.

Mr. REGULA. Does industry, that is the companies involved in renewing forests, give you some input as to the problems they come across so that your research can be directed to helping the total forest base?

Mr. BUCKMAN. The answer is "Yes."

Mr. PETERSON. Mr. Regula, you might be aware that USDA has a Users Advisory Board which is made up of users which advise the department on research in general. In addition to that, there are regional research planning groups that go to users and obtain a consensus on priority ranking, examine what schools, universities, and States are doing, and what private industry is doing. Probably the most successful coordination that we are doing is in the research arena.

POWERED BACKUP ROLLERS

Mr. BUCKMAN. We have an example in this year's Explanatory Notes called "powered backup rollers". This is important to the plywood industry. At our Forest Products Laboratory in Madison, we have developed a new way of putting torque on a log. Imagine a log and the problem of spin-out. That is, there is so much torque on the log as it is being peeled for plywood veneer that it will actually spin out of the chucks. This causes a loss of 5 to 7 percent in the plywood industry. A lot of logs do not even go into a plywood veneer lathe because they are concerned about the spin-out problem. Well, by putting additional torque on the outside of the bolt we can avoid the spin-out problem.

Mr. PETERSON. Just put a powered roller against the log, that runs the length of the log.

Mr. REGULA. The full length of the log?

Mr. PETERSON. The full length of the log, yes.

Mr. BUCKMAN. Regarding this powered backup roller, the testing at the Forest Products Laboratory was completed only about 3 or 4 months ago. Boise-Cascade Corporation has volunteered to permit full-scale tests of this system on a production basis at their plant in, I think it is in Boise, Idaho, and at the same time they have ordered five additional powered backup rollers.

Mr. YATES. Do you mean they are high rollers?

Mr. PETERSON. High-pressure rollers.

Mr. BUCKMAN. The point that I want to make is that we try to stay in close contact with the forest products industry because it is one of the ways of getting new research into application quickly, and this is an example. This development could be worth $50 to $75 million a year, at least, to the industry if it were adopted even on a modest scale.

FOREST PRODUCTS MARKETING

Mr. REGULA. Of course, in the final analysis it is a benefit to the consumer because it reduces the production costs of plywood, if I understand you correctly.

I am curious, what portion of your research budget would go into the marketing end versus the production end of the total forest products picture?

Mr. BUCKMAN. About 25 percent of our budget goes into questions related to product development and marketing and about 75 percent of the budget goes into the biological side, protection from insects and disease, better silvicutural techniques and so forth.

SILVICULTURAL TECHNIQUES IN FOREIGN COUNTRIES

Mr. REGULA. Do you share your work with Germany, for example? I flew over Germany in a helicopter and I was just astounded to see the forestry development. You can see these patterns literally mile after mile that looked almost as if forestry was done like your family vegetable garden.

Mr. BUCKMAN. Yes, we do.

Mr. PETERSON. In fact, we will have a silvicultural exchange group in Europe within the next couple of months as a part of an ongoing interchange with Germany and France, primarily. These two countries that have been practicing forestry several hundred years longer than we have. We can learn a lot of things from what they have tried.

Mr. BUCKMAN. It has been said that technological developments are roughly proportional to R&D expenditures. Roughly one-third of the R&D in the world is performed by this country but two-thirds of it is performed by other countries. I think that is true in forestry as well as in other R&D areas.

Therefore, we simply must be aware of what the other developed countries of the world are doing. Western Europe is a fertile source of information. Australia and New Zealand have both been innovative in forestry.

Mr. PETERSON. Some of the Scandanavian countries have done some very interesting work, particularly with small landowners. We had some interchange with them last year on this and on logging equipment for steep slopes.

FIREWOOD ON NATIONAL FORESTS

Mr. REGULA. Has this phenomenon of people wanting firewood had much impact on going in and cleaning out the areas?

Mr. PETERSON. Yes. In fact, we have a couple of regions that apparently moved more material last year in firewood than they did in regular sales. We had over 972,000 free firewood permits last year that removed about 2 billion board feet.

Mr. REGULA. Two million board feet?

Mr. PETERSON. Two billion board feet.

Mr. REGULA. Two billion board feet were removed? You only sold about 12 billion total, didn't you?

Mr. PETERSON. We offered about 12.

Mr. REGULA. Fantastic.

Mr. PETERSON. That is big business. In some places the demand is such that we probably are going to move into some kind of a charge system for the firewood, a nominal charge. In other places, if we do not let the public remove it we will have to spend money to burn it, so we want to be sure that we do not discourage utilization of it. However, that has become very big business in many places.

SLASH FOR PELLETIZING

Mr. REGULA. Have you had any experience with selling "slash" for pelletizing and that type of thing?

Mr. PETERSON. Yes. There are several pelletizing mills now in place that are entering into contracts with utilities to provide pellets because they are easier to handle than other kinds of wood. I would expect as more wood is used for energy and the convenience that is available from pelletizing would make that a viable option.

TREE IMPROVEMENT PROGRAM

Mr. REGULA. One last question. What would you estimate, say in the last 20 years, has been the result of increased silviculture? Have you doubled the capacity or have you added 50 percent to the capacity of the forests for reproduction?

Mr. PETERSON. Well, I guess about the only way I know to respond to that is, I do not know if you were here when Dr. Buckman was showing these charts about genetic improvement for example, but most of those genetically improved trees have just been put in the ground during the last 10 years.

Mr. REGULA. Therefore, you have not really reaped the benefits?

Mr. PETERSON. We have not reaped the benefits fully. Our objective, on both private lands where we are providing technical and sometimes financial assistance, and on national forests, is by 1990 to be using virtually all genetically improved stock. If that happens, we could well increase capacity by at least 25 percent or something like that.

Mr. BUCKMAN. Perhaps I could cite a statistic or two that might respond to the question. Loblolly pine, a major forest type in the U.S., in 1952 average growth per acre was 43 cubic feet. In 1977 we had an average growth of 75 cubic feet per acre. Douglas fir, in 1952, was 44 cubic feet per acre; in 1977, 75 cubic feet per acre, very similar to the pattern for increasing yields for agricultural crops. These increased growth rates resulted from new technology and increased capital investment.

Mr. REGULA. That is a tremendous record and it certainly adds greatly to our capacity.

Mr. PETERSON. However, you have to get the lands stocked with genetically improved trees, before you start increasing productivity. It has already begun and by the time we get through a cycle it will make a large difference in whether we will be able to meet future needs or not.

Mr. REGULA. Thank you, Mr. Chairman.

NURSERY PROGRAMS

Mr. YATES. Do you have anything to do with the nursery industry?

Mr. BUCKMAN. No, sir, we do not.

Mr. YATES. Which of the agriculture departments would that be?

Mr. BUCKMAN. Science and Education Administration. We would be delighted to get any information the committee wishes.

Mr. YATES. Thank you. I appreciate that. The ornamental industry is reaching such proportions now, I wondered whether the nurseries which I saw in Florida covering so many acres would come within your purview or not because they seem to be growing such huge numbers of these very small trees that are marketable throughout the cities, for example.

Mr. PETERSON. These are Christmas trees?

Mr. YATES. No, these are the dracenas.

Mr. PETERSON. Oh, the landscaping.

Mr. YATES. That is not your baby? You do not do any research on that?

Mr. BUCKMAN. We do research, Mr. Chairman, on forest tree nurseries but not on ornamental nurseries.

Mr. REGULA. Mr. Chairman, I suspect that would fall under an another agency within the Department of Agriculture.

Mr. PETERSON. The Science and Education Administration.

Mr. REGULA. I think they view this like they view wheat, and farm crops.

Mr. PETERSON. The line is not all that fine. For example, we do research on White Pine, and White Pine is a very favorite tree to use for landscaping. However, if you are talking about purely ornamentals then, no, that is done by the Science and Education Administration.

Mr. YATES. Do they have anything to do with the National Arboretum?

Mr. PETERSON. The National Arboretum is run by the Science and Education Administration.

Mr. YATES. Not by the Forest Service?

Mr. PETERSON. Not by the Forest Service.

BONSAI TREES

Mr. YATES. You do not have anything to do with the bonsai.

Mr. PETERSON. We presented them with a bonsai tree that came from one of our forests in the West. We found a very old and gnarled tree that was then taken over by a bonsai expert.

Mr. YATES. How large is the tree?

Mr. PETERSON. It is about this high, and we presented it to the Arboretum. It is one of their fancy trees.

Mr. YATES. How could it be very old and just be that high?

Mr. PETERSON. It grew very, very slowly.

Mr. YATES. I guess so.

Mr. PETERSON. It had a hard life, I guess. No, it was on a very poor forest site.

Mr. YATES. In very poor soil?

Mr. PETERSON. It was just barely alive.

Mr. YATES. Do you grow bonsai in poor soil?

Mr. PETERSON. Just put them somewhere where they will just barely survive. If you go out there you will see one that has a little plaque on it. It came from Gifford Pinchot National Forest, and we presented it last summer. It is ponderosa pine, and it is a bonsai.

FOREST FIRE PROTECTION

Mr. YATES. Let's go back to firefighting for the few minutes that remain today. The Administration has cut back on your fire prevention programs, haven't they? Does that make sense in view of the dry cycle we have throughout the country? I will answer my own question. It does not, does it?

Mr. LEISZ. No, sir.

Mr. YATES. You say these will be partially offset by increased efficiency from use of new technology. What do you mean by "new technology"?

FIRESCOPE

Mr. PETERSON. We are improving firefighting technology all the time. I think we explained FIRESCOPE to you.

Mr. YATES. Yes, but that is not new any longer, is it?

Mr. PETERSON. It is still being installed.

Mr. YATES. Yes, but the only reason you have FIRESCOPE is because of the over-the-budget amounts that we put in the budget. You did not have it in last year's budget or the previous year's budget.

Mr. PETERSON. No, but we are applying the new technology that was developed as a result of FIRESCOPE.

Mr. YATES. There is no money in this budget for FIRESCOPE, is there?

Mr. PETERSON. That is correct. There is not.

Mr. YATES. Should there be?

Mr. PETERSON. It was not within the priorities that we had to work with. Not within the funding we had to work with.

Mr. YATES. How valuable is FIRESCOPE?

Mr. PETERSON. It is quite valuable. Mr. Leisz is our resident expert. I will let him give you a dissertation on FIRESCOPE.

Mr. YATES. Mr. Leisz, tell us about FIRESCOPE. We keep getting requests for funds from the people who live in Southern California and the Congressmen from Southern California. They say it works out well. Can you tell us whether it does and how valuable it is?

Mr. LEISZ. Mr. Chairman, it does work out very well. It is now into about the fifth year of application of the research work, and the savings that have resulted from the application of FIRESCOPE principles have been substantial for the Federal Government, for the State Governments, and the county and city governments as well.

It brings into play the most modern technologies that we could pick up from all sorts of sources, including some of the space-age technologies, infrared telemetry work for example, and in actually programming rates of fire spread. The most important thing is that we are able through that process to work with a declining workforce for all those protection needs, and disperse that with greater efficiency and effectiveness.

SAVINGS DUE TO FIRESCOPE

Mr. YATES. Can you translate that into amounts of money? The reason I ask, you say it has brought savings and so forth.

Mr. LEISZ. Yes. I am trying to recall. We had one study which indicated that the applications would bring about a savings in the range of $35 to $50 million per year.

Mr. YATES. Really?

Mr. LEISZ. Yes, sir.

Mr. YATES. You are not exaggerating?

Mr. LEISZ. In 1979, with only 25 percent of the system operational, savings of 5,000 acres of valuable watershed, estimated at $1.5 million, a number of expensive homes, and a minimum of $100,000 in suppression costs, plus the fact that if the homes had been lost, and considering the flood damage that would have resulted, you would start Federal programs for restitution.

Mr. YATES. Is this the kind of a program that the states ought to take over without Federal contributions?

Mr. LEISZ. Well, I think as soon as we complete the application part, the development and application, that is very logical. That is our plan now.

Mr. YATES. How much more time do you want?

Mr. LEISZ. There are about 4 years to run depending upon what the appropriation amounts would be, and then the program would be supported fully from the users. We still have some development costs to run and we would be glad to provide those for you, sir.

Mr. YATES. Thank you. They may be inserted in the record.

[The information follows:]

FIRESCOPE

The expected Federal costs of completing the development phase of FIRESCOPE over the next four years are (in constant 1981 dollars):

1982	$2,700,000
1983	3,100,000
1984	3,200,000
1985	1,200,000
Total	$10,200,000

Mr. PETERSON. As I think you know, Mr. Chairman, the local people have been putting in 50 percent or more all the time.

Mr. YATES. I knew that but still the Federal Government does not put any money in? I have the impression that Mr. Reagan's home is in one of the endangered areas, isn't it?

Mr. LEISZ. That is correct, sir.

Mr. YATES. The one that is for sale at $1.3 million.

Mr. LEISZ. Plus the fact that his ranch is near the Los Padres Forest.

Mr. PETERSON. Adjacent to that.

NORTHERN MICHIGAN FIRE

Mr. YATES. Let's talk about the northern Michigan fire for the remaining time. You say that there was an "escaped prescribed burn". What does that mean?

Mr. PETERSON. There was an area we intended to burn to remove some fuel. In this case, it was for an endangered species, for the Kirkland's Warbler. The people started the fire; the fire escaped control. We investigated the fire and followed up as we always do on those kinds of fires to see what we can learn from it.

Mr. YATES. That was unfortunate, there was 1 death and 41 houses burned.

Mr. PETERSON. That is correct.

Mr. YATES. Were you negligent in that case? If you are being sued, do not answer for the record.

Mr. PETERSON. Let us say that we went in and got claims information very promptly from the people involved and have settled a substantial number of claims already.

Mr. YATES. Did you learn anything from that occurrence?

Mr. PETERSON. We learned that in a couple of cases we were not following our own directions. As a result of that analysis and some others, we tightened up Service-wide on prescribed burning policy.

Mr. YATES. Let's come back at 10 o'clock tomorrow.

Mr. PETERSON. Certainly, Mr. Chairman.

WEDNESDAY, APRIL 1, 1981.

[Whereupon, the witnesses from the previous day resumed answering questions:]

THIRD PARTY SUBSTITUTION

Mr. DICKS [presiding]. As you recall, two years ago Senator Jackson, Senator Magnuson, Senator Hatfield and I corresponded with you regarding the question of third party substitution. On September 29, 1979 we received a letter informing us of some administrative actions which you proposed to clarify the definitions of export and substitution to eliminate ambiguities and simplify enforcement. After more than a year these regulations were scheduled to go into effect on February 3, 1981. However, the regulation freeze precluded their adoption. I understand that these regulations will now go into effect within the next couple of days.

Is this correct?

Mr. PETERSON. Yes, sir.

Mr. DICKS. What exactly will these new regulations tell you about third party substitution?

Mr. PETERSON. The new regulations call for increased reporting on currently what is happening to sales. You remember that under the old rules a person just reported when a sale was completed which might mean that we would not know what happened to that sale for several years, but now we get current reporting.

Mr. DICKS. What will that reporting entail?

Mr. PETERSON. That will entail that from each purchaser it will give his disposition of the logs. That will enable us to tell then whether some party received the logs that could not purchase them directly. In other words, if some party got the logs that way and thereby augmented their supply in a way that they would be prohibited from doing it directly, that is what we call the substitution provision.

Mr. DICKS. Do you think that those regulations will lessen the practice of third party substitution? If these regulations are in effect there will be clear public understanding of the disposition of these logs and they may serve as a deterrent to the practice of third party substitution.

Mr. PETERSON. That is our hope, Mr. Chairman. It will also give us a more current handle on what has happened so that if this substitution does pick up in volume we will know about it.

Mr. DICKS. Could you explain for the record how efforts to control indirect substitution or to further limit direct substitution could result in disruption of existing log markets as your May 7, 1980 testimony to the House Agriculture Committee states?

Mr. PETERSON. Well, basically many purchasers in the Pacific Northwest end up with logs that their manufacturing facility is not ideally set up to use. It may be a small volume species like cedar. It may be sizes of logs that they are not ideally suited to handle and so it is good economy to have some interchange of logs so that logs go to their highest and best use. The real concern is that it does not result in companies buying trees that they could not otherwise buy.

The best data that we have now would indicate that the substitution is in the neighborhood of one percent.

Mr. DICKS. One percent of what?

Mr. PETERSON. One percent of the sale volumes.

Mr. DICKS. Of the Forest Service?

Mr. PETERSON. Of the Forest Service land.

Mr. DICKS. The real question about third party substitution is that it may serve, as we talked about yesterday, our survival bidding and forcing up the price. Do you believe that this practice has in fact resulted in a higher price level to the people who are bidding? As I understand it, that is what the small mill people really are saying, that the practice of people coming in who are involved in this contributes to this higher bidding level and makes the situation worse.

Mr. PETERSON. Well, I am not so sure that the substitution does that but you cannot get around the fact that when you have timber in the Pacific Northwest that is worth, say, 50 percent more in the export market than in the domestic market, then private land owners who can sell to the export market will likely do so. The logs that the private land owner sells to the export market are not available to the small purchaser who does not have any land of his own. This means that he has to rely on National Forest timber which tends to run up the price of National Forest timber. I think even without substitution the export market has an influence on the price of National Forest timber.

Mr. DICKS. Explain that again. I think that is important to have for the record.

Mr. PETERSON. All right. The private timber is worth somewhere around $450 a thousand in the export market. If National Forest timber is selling, say, for $350, there is clearly a $100 advantage to a private land owner to sell to the export market.

Now the fact that the material sells at a higher price encourages better utilization and encourages private land owners to reforest their land. There are several benefits that happen. A side benefit of that is since the logs are worth $100 more in the export market the private land owner selling in the private export market leaves the company which does domestic manufacturing more dependent on National Forest timber.That tends to increase the price of National Forest timber.

Mr. DICKS. Because there is more competition, more necessity to get those available logs for the mill operation.

Mr. PETERSON. Yes. Now that will probably moderate somewhat next year if the Japanese market is down as it is indicated. The Japanese expect to import about 50 percent less lumber and logs next year.

Mr. DICKS. So therefore in your view there would be more private stumpage available to these mills, or does that work that way?

Mr. PETERSON. We are not sure. If a private land owner thinks he can just hold it six months and sell, he can probably do that but if the private land owner needs to sell his timber, he might make it available to a domestic manufacturer. Anyway, there is not any question that the export market influences log prices in the Pacific Northwest whether they are substitution or not.

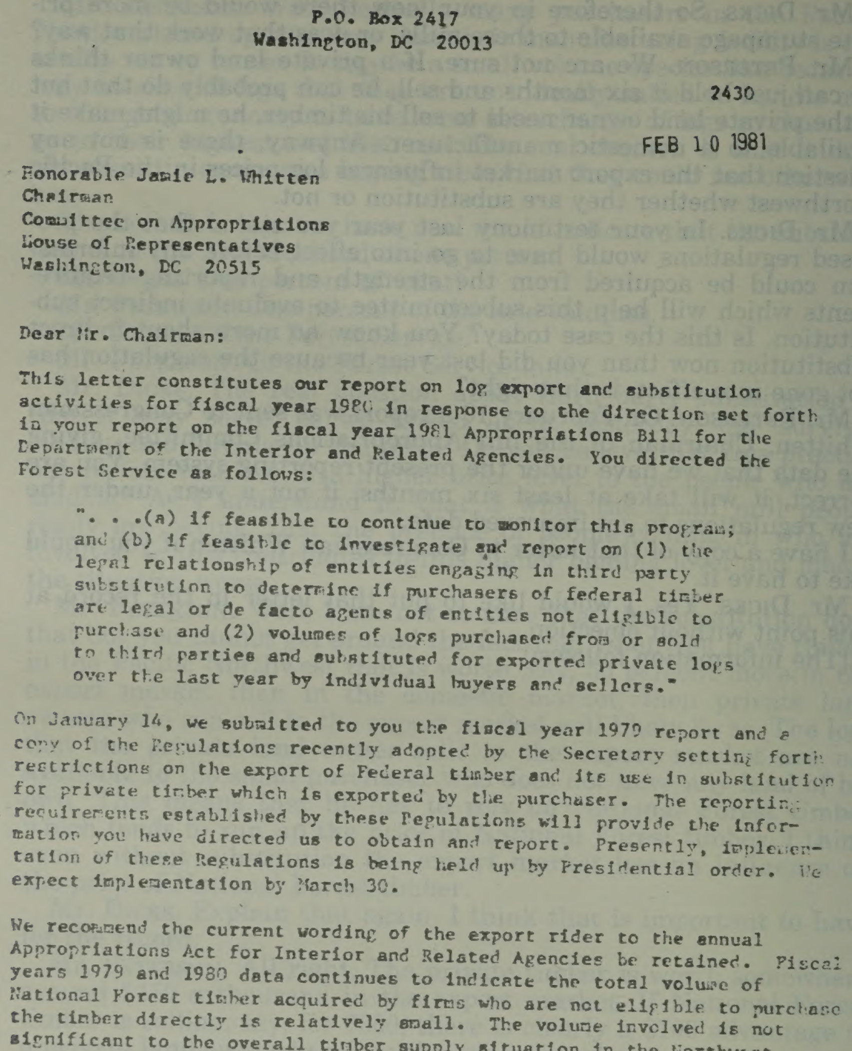
Mr. DICKS. In your testimony last year you stated that the proposed regulations would have to go into effect before any information could be acquired from the strength and reporting requirements which will help this subcommittee to evaluate indirect substitution. Is this the case today? You know no more about indirect substitution now than you did last year because the regulation has not gone into effect, is that right?

Mr. PETERSON. On February 10 a report was sent to Congressman Whitten, Chairman of the full Appropriations Committee, giving the data that we have under the present reporting system. You are correct, it will take at least six months, if not a year, under the new regulations to get improved data.

I have a copy of that letter to Congressman Whitten if you would like to have it.

Mr. DICKS. Yes, I would like to put that letter in the record at this point without objection.

[The information follows:]



P.O. Box 2417
Washington, DC 20013

2430

FEB 10 1981

Honorable Jamie L. Whitten
Chairman
Committee on Appropriations
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

This letter constitutes our report on log export and substitution activities for fiscal year 1980 in response to the direction set forth in your report on the fiscal year 1981 Appropriations Bill for the Department of the Interior and Related Agencies. You directed the Forest Service as follows:

> ". . .(a) if feasible to continue to monitor this program; and (b) if feasible to investigate and report on (1) the legal relationship of entities engaging in third party substitution to determine if purchasers of federal timber are legal or de facto agents of entities not eligible to purchase and (2) volumes of logs purchased from or sold to third parties and substituted for exported private logs over the last year by individual buyers and sellers."

On January 14, we submitted to you the fiscal year 1979 report and a copy of the Regulations recently adopted by the Secretary setting forth restrictions on the export of Federal timber and its use in substitution for private timber which is exported by the purchaser. The reporting requirements established by these Regulations will provide the information you have directed us to obtain and report. Presently, implementation of these Regulations is being held up by Presidential order. We expect implementation by March 30.

We recommend the current wording of the export rider to the annual Appropriations Act for Interior and Related Agencies be retained. Fiscal years 1979 and 1980 data continues to indicate the total volume of National Forest timber acquired by firms who are not eligible to purchase the timber directly is relatively small. The volume involved is not significant to the overall timber supply situation in the Northwest.

Sincerely,

R. MAX PETERSON
Chief

R. MAX PETERSON
Chief

Enclosures

no jacket number
cc: CRO, LA, Cromley w/enclosures
Hughes, Sales
TM:MQHughes:jac:2/6/81
On Judy C's disc - Whitten.1

DISPOSITION OF HARVEST VOLUME FROM SALES WHICH WERE COMPLETED IN FY 1980

Harvest Volume - Million board feet

California

2/81

National Forest	Processed by Purchaser	Sold to Others for Processing			Exempt Species	Total Reported Harvest
		Could have purchased direct	Could not have purchased direct			
			Set-aside 1/	Substitution 2/		
Eldorado	70,100	12,106	---	7,071	---	89,287
Inyo	6,077	3,241	1,596	---	---	10,914
Klamath	70,035	---	10,738	---	196	80,969
Lassen	302,829	10,060	14,619	---	555	328,063
Mendocino	1,818	12,049	---	---	---	13,867
Modoc	23,783	18,268	---	---	---	42,051
Plumas	85,082	857	16,400	---	---	102,339
Sequoia	34,099	267	250	250	---	34,866
Shasta	115,300	9,600	4,100	---	---	129,000
Trinity	108,500	14,500	500	---	1,000	124,500
Sierra	131,010	9,640	---	---	---	140,650
Six Rivers	11,249	---	---	---	26	11,275
Stanislaus	30,510	5,010	---	1,400	---	36,920
Tahoe	66,669	5,234	---	---	---	71,903
LTBMU	---	286	---	---	n/a	286
Total-California	1,057,061 (87%)	101,118 (8%)	48,203 (4%)	8,721 (1%)	1,777 (0%)	1,216,880

1/ Sales set-aside for small business, up to 30% may be resold to big business.
2/ Direct purchase would have constituted substitution under 36 CFR 223.10.

Oregon and Washington

2/81

National Forest	Processed by Purchaser	Sold to Others for Processing: Could have purchased direct	Sold to Others for Processing: Could not have purchased direct: Set-aside 1/	Sold to Others for Processing: Could not have purchased direct: Substitution 2/	Exempt Species	Total Reported Harvest
Colville	83,097	500	---	---	---	83,597
Deschutes	134,795	17,875	1,922	---	---	154,592
Fremont	94,095	4,637	9	---	---	98,741
Gifford Pinchot	62,543	36,176	10	4,482	5,429	108,640
Malheur	113,380	13,062	---	---	---	126,442
Mt. Baker/Snoqualmie	136,911	122,615	---	26,720	12,200	298,446
Mt. Hood	202,834	42,430	2,900	---	7,962	256,126
Ochoco	11,828	22,759	---	---	---	34,587
Okanogan	52,679	240	---	---	---	52,919
Olympic	242,072	95,847	2,600	1,813	---	342,332
Rogue River	205,541	35,086	19,110	---	---	259,737
Siskiyou	155,709	37,529	6,606	1,062	7,351	208,257
Siuslaw	339,735	88,700	14,915	---	---	443,350
Umatilla	90,054	16,344	1,259	---	---	107,657
Umpqua	330,987	53,923	10,029	---	---	394,939
Wallowa-Whitman	283,120	41,051	---	---	---	324,171
Wenatchee	63,447	36,883	1,355	---	3,201	104,886
Willamette	326,054	142,606	11,738	261	3	480,662
Winema	62,533	6,973	2,420	---	---	71,926
Total-Oregon and Washington	2,991,414 (76%)	815,236 (20%)	74,873 (2%)	34,338 (1%)	36,146 (1%)	3,952,007
Total-California, Oregon, and Washington	4,048,475 (78%)	916,354 (18%)	123,076 (2%)	43,059 (1%)	37,923 (1%)	5,168,887

1/ Sales set-aside for small business, up to 30% may be resold to big business.
2/ Direct purchase would have constituted substitution under 36 CFR 223.10.

INDIRECT SUBSTITUTION

Mr. DICKS. As I recall, this is the report based on the best information that we have at this point and that indicates that less than one percent of sales are involved in indirect substitution. How confident do you feel of that information since we have not gotten the regulations into effect? Do you feel comfortable with that based on your assessment?

Mr. PETERSON. I would expect it is reasonably close. I would not say that it is accurate because logs do move throughout the Pacific Northwest and after they move through one or two people it is virtually impossible to track. It is possible that it will be slightly higher than that but the best information we have would indicate that is very close to the right amount.

Mr. YATES. Isn't it true that before that in the prior year you had extensive hearings in the Pacific Northwest and gave everyone a chance to come in and present both sides of this case?

Mr. PETERSON. That is correct. We have asked anybody who has information on indirect substitution that they think is current to provide us with that information.

Mr. DICKS. How was that done?

Mr. PETERSON. We asked that in the hearings, for example. We said in the hearings, do you have any information on indirect substitution that is occurring?

Mr. DICKS. Have we received anything?

Mr. PETERSON. We have not received any specific data, no. We received some letters saying we think substitution is occurring in this area but no data to back that up. In all fairness, it is probably hard to get the data that it is actually occurring because it would be a violation of the export rider. If that is occurring it would obviously not be something that somebody would advertise.

Mr. DICKS. Is it possible to ask a successful bidder, who has just entered into a Forest Service contract, if they currently have some agreement or contractual relationship with somebody else.

Mr. PETERSON. That is what we are doing as far as the reporting requirements. We ask people at the time they buy at the sale their expected disposition of the logs.

Mr. DICKS. They tell you this.

Mr. PETERSON. Yes.

Mr. DICKS. Do they have to certify to the veracity of their remarks?

Mr. PETERSON. No, prior to the sale they have to agree to furnish the Forest Service the name and address of processing plants or other locations where the timber is expected to be delivered. The names and advertised volumes of timber sales purchased for delivery to each such location in calendar years 1971, 1972 and 1973, which is the base period, and the volumes of unprocessed timber from private lands to each location which would be exported and sold in that base year and then they have to agree to provide a certified copy showing the disposition of the timber as it is actually harvested.

Mr. DICKS. We are going to get a pretty good picture of what is going on, is that your view?

Mr. PETERSON. I think so. I think there is general agreement within the industry that this reporting would be reasonably good and if we find a case where it is not being followed we will take action as provided in the regulation.

VIOLATION OF EXPORT RIDER

Mr. YATES. Some people have suggested a prohibition on any third party substitution and that we would change the language in the appropriations bill to accomplish that. What is your view?

Mr. PETERSON. With the data that we have on hand. We do not believe that the one percent substitution that is occurring is enough of a problem to undertake complete control because the economics of this interchange is important to a lot of people and we just don't believe the public interest is there at the present time.

Mr. DICKS. The position of the Administration and the Forest Service is that the amendment, as it is in the appropriations bill, should be left as it is at least until we have better information to base some action on. Is that a fair statement?

Mr. PETERSON. That is correct. We believe the export rider that you have now is the correct one.

Mr. DICKS. Short of changing the export rider, are there any administrative steps that could be taken to remedy this if you found that this practice was occurring more and more frequently?

Mr. PETERSON. Well, if somebody certifies in a contract the disposition of timber and then we find out that has been violated, there are remedies in the contract that can be taken.

Mr. YATES. Give us an example.

Mr. PETERSON. Well, depending how serious it was. The most serious case could result in breach of contract but there are remedies even short of that.

Mr. DICKS. Will this become part of a contractual stipulation?

Mr. PETERSON. Yes.

Mr. DICKS. Do they tell you how the logs will be disposed of?

Mr. PETERSON. It is part of the information they provide in support of the contract and then if they change that they are supposed to notify us of the change so that we can be assured that it is not in violation of the export rider. There is a general contractual provision as you recall that prevents export of National Forest timber.

GRANDFATHER CLAUSE RELATED TO EXPORTATION

Mr. DICKS. Aren't there some existing regulations that allow for the exportation or a certain level of substitution? Could you review that here briefly and then supply it for the record? There was some grandfathering that went on wasn't there?

[The information follows:]

REGULATION REVIEW OF TIMBER EXPORT

Small purchasers in the Northwest, particularly the Puget Sound area, continue to express concern about "third-party substitution." The concern is generated by a high level of purchases by firms without processing facilities. There is fear that much of the volume purchased by such firms may ultimately be sold to exporting firms. Data available currently does not support the concern about increased substitution. Disposition reports on sales completed in 1979 and 1980 show that only 1 percent of the volume on sales closed each of those years had been sold to firms who could not have purchased the timber directly because of the substitution restriction.

The reporting requirements of the new log export regulation will enable us to develop accurate data on levels and trends in substitution. This regulation is currently delayed by the Administration's freeze on regulations. We will be able to report to the Congress by the end of 1981.

Pending development of data which indicates that substitution is in fact a significant factor in timber supply, we do not believe a change in current laws or regulations is warranted.

Mr. PETERSON. Yes. There is a grandfathering during that base period of 1971, 1972 and 1973 and a person cannot change the amount of unprocessed timber that goes into export by more than 10 percent if they are a purchaser of National Forest timber.

Mr. DICKS. Would you report that again?

Mr. PETERSON. Let's suppose that on the average somebody was exporting 300 billion feet of private timber in 1971 to 1973. They could not export, if they are still a purchaser of National Forest timber, more than 300 plus 10 percent as I recall it or they could not export more than 330 and still be eligible to purchase National Forest timber.

Mr. DICKS. Would you provide for the record the businesses who have the rights under these grandfather clauses?

Mr. PETERSON. The companies that were exporting at the time the base period was established. Most of the companies out there were doing some level of export and are still exporting at this time.

Mr. DICKS. Can they only get a Forest Service sale if they are within 10 percent of the level that they were at at that time?

Mr. PETERSON. My memory is 10 percent.

Mr. DICKS. Let us know for the record who can benefit from that.

[The information follows:]

THE 1971-73 GRANDFATHER CLAUSE

Information relating to those businesses benefiting from the 1971-73 (export) grandfather clause is not readily available. However, the following Research Note, Pacific Northwest 355, is an excellent factual discussion of the issues involved.

ALASKA • OREGON • WASHINGTON
PNW RESEARCH NOTE
809 NE 6th AVE
Portland, Oregon
97232
PACIFIC NORTHWEST FOREST AND RANGE EXPERIMENT STATION

PNW-355 April 1980

SUBSTITUTION AND THE USDA FOREST SERVICE LOG EXPORT RESTRICTIONS

by

Gary R. Lindell [1]

Abstract

With some exceptions, the substitution of National Forest timber for exported private timber is forbidden by regulations. Certain firms may use a limited amount of National Forest timber as replacement for exported private timber, however, in accordance with their pattern of purchases and exports from 1971 through 1973. About 359 million board feet of National Forest timber could be used annually as replacement for exported private timber by this provision; in 1977 about 102 million board feet was used in this fashion. About 81 percent of the replacement volume was from National Forests in Washington.

KEYWORDS: Import/export (forest products), trade policy (international) National Forest administration.

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[1] Principal Economist, Pacific Northwest Forest and Range Experiment Station at the time this report was written. Currently Assistant Director, Planning and Applications, Forest Products Laboratory, Madison, Wisconsin.

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

The pros and cons of permitting the export of unprocessed softwood logs from the west coast have been debated for a long time,[2] however, the conflict shows no signs of abating.

The controversy has led to the enactment of fairly extensive Federal regulations designed to prohibit the export of Federal timber and to prohibit the substitution of Federal timber for private timber to be exported. In addition, Oregon, California, and Alaska have implemented regulations to restrict the export of timber from State-managed lands. As a result of the combination of Federal and State restrictions, about 38 percent of the combined timber harvest of the three States of Washington, Oregon, and California is directly controlled by export regulations (table 1).

The purpose of export restrictions may be to insure domestic processing of logs from public lands or it may be to restrict the volume of exports. The volume of logs exported is on the increase. For example, in 1979, log exports from the west coast and Alaska reached a record 3.4 billion board feet.[3]

As a result of the large volume of exports, questions have been raised about the effectiveness of current regulations. Opponents of exports have expressed concern that the regulations may contain loopholes that permit timber purchasers to take actions against the intent of the regulations.

Table 1--Proportion of total timber harvest prohibited from export by Federal or State controls in Washington, Oregon, and California, 1977

State	Total timber harvest	Portion of total harvest prohibited from export by Federal controls		Portion of total harvest prohibited from export by State controls		Portion of total harvest prohibited from export by Federal and State controls	
	Million board feet	Million board feet	Percent	Million board feet	Percent	Million board feet	Percent
Washington	6,591	1,175	17.8	--	--	1,175	17.8
Oregon	7,525	3,952	52.5	228	3.0	4,180	55.5
California	4,787	1,757	36.7	28	0.6	1,785	37.3
Total (average)	18,903	6,884	(36.4)	256	(1.4)	7,140	(37.8)

Source: Ruderman, Florence K. 1979. Production, prices, employment, and trade in northwest forest industries. Published quarterly. USDA For. Serv. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

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[2] For example, the October 3, 1936, issue of the Oregonian reported initiatives by the Portland Chamber of Commerce to check the flow of Port-Orford-cedar logs to Japan.

[3] Ruderman, Florence K. 1979. Production, prices, employment and trade in northwest forest industries. Published quarterly. USDA For. Serv. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

One loophole that has come in for particular scrutiny is the grandfather clause of the USDA Forest Service substitution regulations. Although substitution is forbidden, this provision enables certain firms to use a limited amount of National Forest timber as replacement for private timber to be exported. This paper reports the result of a study to determine the nature and extent of this practice.

Substitution Regulations of the USDA Forest Service

The USDA Forest Service was specifically directed to control substitution according to the terms of a rider to the agency's 1974 appropriations bill (P.L. 93-120).[4] In October, 1973, proposed regulations were published and public comments were solicited. Considering these comments, the Forest Service implemented substitution regulations in March, 1974.

Public comments appeared to favor using traditional marketing patterns as a base in control of substitution. Replacement by National Forest timber would be permitted in accordance with the traditional or historical pattern and substitution would be considered as occurring only when the exporter increases purchase of National Forest timber or increases export of private timber.

Consequently, the regulations recognized a firm's historical base period as 110 percent of the firm's average annual volume of National Forest timber purchases and export of private timber for the calendar years 1971-73. A firm which had been exporting private timber and purchasing National Forest timber during this period could continue to do so subject to the export and purchase limitation or quota. Substitution was defined as, for any subsequent year, an increase in exports relative to the historical base while the firm continues to purchase National Forest timber or an increase in National Forest purchases while the firm continues to export. A firm violating either of these provisos is guilty of a contract violation and faces possible debarment from subsequent sales and cancellation of existing contracts.

Since timber is not readily transportable, the regulations are tied to a particular market area or tributary area. Thus a firm may establish different purchase and export quotas for different tributary areas. A tributary area is established for each mill where National Forest timber is to be processed. The boundary of the area is determined by establishing from the records the area from which each mill received its supply of timber for the base period (1971-1973). Once established, a tributary area is not normally subject to change.

Firms which want to purchase National Forest timber and export private timber are required to submit data to establish their historical purchase and export base. The data must also support the proposed tributary area.

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[4] For additional details see: Lindell, Gary R. 1978. Log export restrictions of the Western States and British Columbia. USDA Forest Service Gen. Tech. Rep. PNW-63, Pac. Northwest and Range Exp. Stn., Portland, Oreg.

Historical Base Levels

To obtain an estimate of the amount of National Forest timber that can be used as replacement through this provision of the regulations, all of the Western National Forests were canvassed to determine the historical bases which have been established. It was necessary to canvass each National Forest since the monitoring and enforcement of the substitution regulations are done at the Forest level.

As of mid-1979, 49 historical bases had been established in Washington and Oregon and an additional 7 had been established in California. No quotas have been established by firms in the Intermountain or Rocky Mountain areas. In most cases a firm has only one historical base, but some of the larger firms have established bases for several different tributary areas.

During the 1971-73 period, the firms with historical bases exported a total of 1.6 billion board feet of private timber and purchased 4.2 billion board feet of National Forest timber. The sum of the established historical bases is thus 0.6 billion board feet for exports (1.6 ÷ 3 x 110 percent) and 1.5 billion board feet for purchases (4.2 ÷ 3 x 110 percent).

This does not mean that an annual total of 0.6 billion board feet of National Forest timber may be used as replacement for exported private timber. For each firm the permissible volume is determined by the lesser of its export or purchase quotas. For example, a firm which has an export quota of 5 million board feet and a purchase quota of 25 million board feet can use no more than 5 million board feet of National Forest timber as replacement for exported private timber. To obtain a west-wide estimate of replacement, the lesser of these two figures are added for each firm.

Results indicate that 359 million board feet could be used annually as replacement in the West (table 2). Most of the quota has been established by firms operating in the State of Washington, particularly in the vicinity of the Gifford Pinchot National Forest. This does not mean that these volumes are necessarily tied to a particular National Forest; some firms have tributary areas which encompass more than one National Forest. Firms could switch their purchases to another National Forest as long as they fall within the same tributary area. The data in table 2 do indicate, however, the general area of activity of exporters which also were purchasers of National Forest timber.

Although 359 million board feet of National Forest timber could be used as replacement for exported private timber for any given year, the actual volume is less than the allowable. Some firms have stopped exporting. Some exporters have found their quotas too restricted and have stopped purchasing National Forest timber.

Table 2--Volume of National Forest timber that may be used as replacement for private timber to be exported within the substitution regulations

National Forest	Volume (thousand board feet)
Washington:	
Gifford Pinchot	98,120
Olympic	73,735
Mt. Baker-Snoqualmie	29,073
Wenatchee	1,000
Total	201,928
Oregon:	
Mt. Hood	62,586
Siuslaw	3,498
Willamette	5,897
Siskiyou	25,652
Total	97,633
California:	
Tahoe	28,600
Six Rivers	26,989
Shasta Trinity	196
Klamath	13
El Dorado	3,267
Total	59,065
All National Forests	358,626

To obtain an estimate of how much replacement occurs, each National Forest was queried to obtain followup data on purchases and exports by those firms with established historical bases. As before, the lesser of the volume of timber exported or purchased was used as a proxy for the volume of National Forest actually used as replacement.

Data were summarized for all of the firms involved in export and purchase in 1977. For that year, approximately 102 million board feet of National Forest timber was used as replacement for private timber to be exported (table 3). Most of the replacement occurred with timber from National Forests in Washington.

Table 3--Volume of National Forest timber used as replacement for private timber to be exported, 1977

National Forest	Volume (thousand board feet)
Washington	82,919
Oregon	10,686
California	8,340
Total	101,945

Discussion

Results of this study indicate that about 100 million board feet of National Forest timber is annually used as replacement for private timber to be exported. This study measured only direct replacement; no effort was made to determine the amount which is indirectly substituted for private timber to be exported.

The Forest Service is not required to monitor export and purchase activity beyond the original purchaser. This means that a firm which is ineligible to purchase a National Forest sale because it has exceeded its export quota can purchase National Forest timber from another firm and thus indirectly engage in substitution. Indirect substitution cannot be precisely determined. In response to a congressional request, however, the Forest Service concluded that indirect substitution is not widespread and that modification of the regulations is unwarranted.[5]

Our purpose is not to argue for more or fewer export restrictions. Whether or not the permitted replacement, approximately 100 million board feet, constitutes a major loophole depends on one's point of view. Although this represents the annual log requirements for five to six medium-size sawmills, it is a small proportion of total exports, the bulk of which come from private lands or from lands managed by the State of Washington.

There appears to be little basis for determining the net effect of closure of the replacement loophole on log supplies available to domestic processors. For examples, indirect substitution might increase in response to closure of the loophole, and firms affected by the closure who also buy and sell logs in the domestic market might reduce their domestic log sales in order to compensate for the loss of National Forest timber. Or firms might decrease export sales, decrease purchases of National Forest timber, and increase processing of private timber. Even in this situation, however, the net effect on supplies to domestic processors is uncertain: Firms not involved in purchasing National Forest timber might divert log sales from the domestic to the export market in response to any decline in export sales by competing firms.

In summmary, this study has documented the historical base level of 359 million board feet for firms eligible to substitute National Forest timber for private timber to be exported. Of this total, firms are substituting only about 100 million board feet. Over 80 percent of the substitution occurs in the State of Washington. Prohibition of substitution would not necessarily increase log supplies to domestic processors by 100 million board feet.

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[5] Letter dated September 28, 1979, from R. Max Petersen, Chief, USDA. Forest Service to the Honorable Norman D. Dicks. Copy on file at Pacific Northwest Forest and Range Exp. Stn., Portland, Oreg.

Mr. PETERSON. It is not more than 10 percent above their historic level in any calendar year while they still have National Forest timber under contract.

U.S.-JAPAN LUMBER TRADE COMMITTEE

Mr. DICKS. Are you familiar with the U.S.-Japan Lumber Trade Committee which was organized pursuant to the multilateral trade negotiations that were completed last fall?

Mr. PETERSON. Yes, sir.

Mr. DICKS. What type of benefits do you think could accrue to the timber industry as a result of the negotiations and the work of the U.S.-Japan Lumber Trade Committee in the long term?

Mr. PETERSON. I think quite a few benefits could accrue. One of the objectives of that working group is to have United States firms cut dimensions that fit the Japanese practice so that the Japanese would import more finished lumber than logs and over time work to increase the percentage of lumber versus logs.

Now this is difficult to accomplish except on a long-term basis because as you recognize the Japanese have built milling facilities to accommodate logs in their own country, therefore, they would have the same problem as we would have if we didn't have logs for the West Coast mills. They have to work on this over a period of time plus the fact that the Japanese construction techniques are quite different than ours. The sizes they use are different. There has to be custom manufacturing to their specification. Several West Coast mills are now doing this and that accounts for the increase of lumber exports.

COMPETITION OF CANADIAN PRODUCTS

Mr. DICKS. One of the things that also has hampered the ability of our West Coast mills to compete is the fact that the Canadians have been selling extensively to this market at a price that is $20 per thousand less than the price that we can come up with in the United States. How do you foresee that as impacting on the efforts to expand the export of a finished product?

Mr. PETERSON. The Canadians are competitive for the finished product side. Canada does not export logs basically so I think that will be a competitive situation for the United States to deal with as they get more of that market, but if the total Japanese demand goes up, in other words if they start shifting logs into lumber, then I think we can compete but it is going to be a competitive situation throughout the East.

Mr. AuCOIN. Would the gentleman yield?

Mr. DICKS. Yes, I yield.

BIDDING CONTRASTS BETWEEN CANADA AND THE UNITED STATES

Mr. AuCOIN. Could you describe to the committee any contrasts between Canada and the United States in terms of the bidding on the timber sales, at stumpage prices between Canada and the United States? What enables the Canadians to undercut the price in the United States?

Mr. PETERSON. Well, I am not sure I can give you a very good description. In the first place, Canada has mostly provincial forests that are managed by each province and many times the companies have long-term contracts versus the shorter term contracts and therefore inflation may not show up quite as fast in the Canadian price of logs. Canada has in some places a terrain advantage in that some of the terrain is better than some of ours. They do have a transportation advantage particularly as you move north in Canada so there are certain advantages there. On the other hand, we have an advantage in having excellent quality and types of logs in the Pacific Northwest that are not readily available in Canada.

Mr. AuCoin. What are the prices being paid by the industry for stumpage in Canada?

Mr. Peterson. I think I better get you that number because I am afraid my numbers might be a little out of date.

Mr. AuCoin. Is it more substantially?

Mr. Peterson. In the long-term contracts it is, yes.

Mr. Dicks. Are those long-term contracts subsidizing their mill operations in Canada?

Mr. Peterson. It certainly prevents the government from picking up the increased value of the logs.

Mr. Dicks. The government could change the policy. If they had a long-term contract though——

Mr. Peterson. One other factor that is going to influence the export market some is that the Alaska natives will be entering the export market and will probably be selling logs to Japan since they are closer.

Mr. Dicks. That would be a transportation advantage.

Mr. Peterson. They have a significant transportation advantage.

Mr. Dicks. Over the Canadians or the United States?

Mr. Peterson. Over both Canada and the United States.

Mr. Dicks. Do you see them entering into the finished market?

Mr. Peterson. No. The natives right now do not have milling facilities in Alaska so they are selling logs.

REASONS FOR DIFFERENCES IN STUMPAGE

Mr. AuCoin. Mr. Chairman, I know you are pressing on the export side of this but can we come back to this after a moment? I have a question on stumpage. There is a significant difference in the value of stumpage. In your judgment what are the reasons that the price is so much lower in Canada? You mentioned long-term contracts. Is that the major effect?

Mr. Peterson. There are some other differences. Canada requires the purchaser to do a lot of things that we don't do in the United States. In other words, the purchaser has significant responsibilities for reforestation, for timber stand improvement, for construction of the roads and maintenance of roads.

Mr. AuCoin. Does that lower the price to the purchaser?

Mr. Peterson. That lowers the price of the stumpage because that is deducted from the stumpage price.

Mr. AuCoin. But it goes into the cost of the firm that is purchasing the stumpage.

Mr. Peterson. Yes. I am talking about comparative cost of stumpage. It would be difficult to compare the price of stumpage in the United States and Canada because there is a difference in what they require the purchaser to do.

Mr. AuCoin. What is that difference?

Mr. Peterson. Well, in many places in Canada they are completely virgin areas where the purchaser comes in and builds major road systems, builds large construction camps, builds facilities for all of his workers, picks up almost the complete maintenance of the road systems and other facilities, does reforestation and so on.

Mr. AuCoin. All those things cost him something. How can he absorb all those costs and come in with a price that undercuts domestic United States concerns?

Mr. Peterson. I am not sure. I don't know that it is highly significant. We have been quite competitive on the West Coast so far. All I was addressing was that you just can't compare stumpage prices and assume that they will get a big advantage because they pay less for stumpage. You have to look at the total cost structure both ways and the total cost structure, I believe, is fairly close except for these long-term sales where they have not had to pick up the increased cost of inflation.

I will be in Canada in about six weeks again and we are going to explore with the Canadian Forest Service a North American timber model that looks at the entire flow of timber in North America and that will help us understand some of these interrelationships better because right now our model does not include Canada.

Mr. Dicks. I would hope that in that context you would look at the transportation issues that have been there in the past that affect that flow and other government regulations.

Mr. Peterson. We will.

Mr. Dicks. It is important for us to get a feeling for how Government regulations impact on this whole market.

Mr. Peterson. Right.

TIMBER SALE LEVEL FOR 1982

Mr. Dicks. Let's go on now to timber sale levels. The proposed fiscal year 1982 budget proposes 11.9 billion board feet sales, the same level as fiscal year 1981. Have you calculated how this will be broken down on a region by region basis?

Mr. Peterson. Yes, we have. I think Mr. Housley has that.

Mr. Dicks. Why don't you put that in the record and tell us what the timber sale level is for Region 6.

Mr. Peterson. All right.

[The information follows:]

Regional distribution of 11.9 MMBF

	MMBF
R-1	1,188
R-2	365
R-3	453
R-4	419
R-5	1,900
R-6	5,200
R-8	1,220
R-9	680
R-10	516
Total volume	11,941

Mr. AuCoin. Take the broadest view possible.

Mr. PETERSON. Yes. This is not a narrow perspective at all. Region 6 will retain its historical share.

Mr. DICKS. Which is half.

Mr. PETERSON. That is 5.2 billion board feet which is the same as the 1981 President's budget.

ADDITIONAL 300 MMBF FOR 1982

Mr. DICKS. Last year the subcommittee added money to the budget to prepare an additional 300 million board feet to be available for sale in fiscal year 1982. Why haven't you proposed a budget to accommodate a sales level on 12.1 billion board feet to take advantage of this additional 300 million board feet already prepared for sale or prepped for sale?

Mr. PETERSON. I think we very well may come back if the market picks up and propose that that be sold. At the present time it appears that the market may well yet be sold next year and it might be better to wait until the market starts picking up to offer that 300 million. It would cost about $21 million additional to sell it in 1982.

Mr. DICKS. How much?

Mr. PETERSON. About $21 million to sell it in 1982. That would be for purchaser credit and all the other things that go with it.

Mr. AUCOIN. Can you tell me the amount of money that was appropriated last year for the extra 300 million board feet?

Mr. PETERSON. I think it was around five million.

That is just the sale preparation part of it.

Mr. AUCOIN. What happened to that five million?

Mr. PETERSON. We are spending that in the preparation now.

Mr. AUCOIN. It is being fully committed to the preparation?

Mr. PETERSON. Yes, so it will be ready at the end of the year.

Mr. DICKS. It says here that it included an increase above the amount provided by the Senate for the National Forest system in construction and land acquisitions, $29.7 million to prepare for sale in fiscal year 1981 an additional 300 million board feet of timber to be offered for sale in the fiscal year 1982. It must be just part of that, is that right?

Mr. PETERSON. Yes. Then the correct number is $29.7 million.

Mr. DICKS. Is that the correct number?

Mr. PETERSON. Yes.

Mr. AUCOIN. Just for the 300 million board feet?

Mr. PETERSON. Yes.

Mr. DICKS. But it would take $21 million extra to actually offer it up for sale.

Mr. PETERSON. Yes. The obligation is primarily in roads and purchase credit.

Mr. AUCOIN. Why is that so expensive? That seems phenomenally expensive.

Mr. DICKS. Is that for roads?

Mr. PETERSON. When you sell it at that point the purchaser is going to build certain roads and that shows up as a technical obligation against the Government and even though it just results in reduced receipts to the Government it still shows up as an appropriation amount. That is a peculiarity of the 1974 Resources Planning Act that made purchaser credit subject to appropriation.

Mr. AuCoin. Every one of those dollars goes to prepare roads and the like?

Mr. Peterson. Yes.

Mr. AuCoin. Are there any auxiliary costs for nonroad construction?

Mr. Peterson. Oh, yes. If we started to sell the sale at mid year next year, those sales would have to be reappraised in the market at that time, for example. You would have to prepare the packages for advertisement, you would have to get them out with the correct data in them.

Mr. AuCoin. Are they all directly related to the sale?

Mr. Peterson. All directly related to the sale but the work on the ground to have designated the areas and make the maps and all of that would have been done.

SHORTAGES OF MONEY FOR LOGGING ROADS

Mr. Dicks. I want to go back to one other thing that is in this same area and this is that article we talked about in the Oregonian that appeared March 29 which says:

> The Reagan administration and Congress are working to avoid a major disruption in National Forest timber sales caused by a shortage of money for logging road programs.
>
> The 19 National Forests of Oregon and Washington alone need appropriations and authorizations of more than $81 million soon according to the U.S. Forest Service. The amount is almost one-third of the $255 million in road engineering and construction planned this year.
>
> If the situation is not corrected, the service will not sell about 370 million board feet of the 5.2 billion board feet scheduled in fiscal 1981, Jim Torrence, deputy regional forester, reported Friday.
>
> The funding shortage could slash 1.7 billion board feet from sales in the region in fiscal 1982 and a total of 5.6 billion in fiscal 1981-85, Torrence said.
>
> The failure to sell that much timber would force a number of wood product mills to close, leave thousands of workers without jobs and devastate some mill-dependent communities.

Now as I understand it, the Administration asked for $62.5 million in the supplemental appropriations bill for this purpose.

Mr. Peterson. Yes.

Mr. Dicks. Can you handle part of this $81 million deficit by using the purchaser credit account as well?

Mr. Peterson. Yes.

Mr. Dicks. It is a complicated area for us to understand. Would you clarify it for the record?

TEN PERCENT FUNDING FOR ROADS

Mr. Peterson. Let me quickly give you the four things that are causing this so that you understand.

Mr. Dicks. All right.

Mr. Peterson. First is the shortage in the 10 percent fund and that is the $62.5 million.

Mr. Yates. Ten percent for what?

Mr. Peterson. In the 10 percent funding for roads.

Mr. Dicks. Could you tell us what that is? What is the 10 percent funding for roads?

Mr. Peterson. That is 10 percent of the National Forest fund receipts coming back to us to be used for roads. When we estimated that amount for 1981 some 18 months before fiscal year 1981 started, we estimated too high.

Mr. Dicks. When the market went down, people didn't do the harvesting.

Mr. Peterson. That is right.

Mr. Dicks. And therefore we got fewer receipts in the 10 percent fund, is that right?

Mr. Peterson. That is right.

Mr. Dicks. All right.

Mr. Peterson. Now we will get that money when the harvesting is done so it is not money that the Government will lose but it is money that in the short run you cannot spend until you actually get the receipts in for a year and then you spend those receipts in the following year.

Mr. Dicks. But the point is this committee is not responsible for that shortage in the sense that we could not control the market situation.

Mr. Peterson. That is right.

Mr. Dicks. That is important to have on the record.

Mr. Peterson. As I pointed out to Chairman Yates, we have an estimate in the budget for 1982 which could also be incorrect if the harvest does not match what we estimate for 1982.

Mr. Yates. That would be in accordance with your tradition of underestimating.

Mr. Peterson. Our tradition in the last few years has been underestimating; at times we have gone the other way.

Mr. Yates. Really?

Mr. Peterson. In the last few years.

Mr. Yates. When is the last time you went the other way and underestimated?

Mr. Peterson. Two years ago we estimated an amount and the receipts were actually higher than that.

Mr. Yates. Really?

Mr. Dicks. It depends on the market and sometimes we cannot clearly predict the market.

Mr. Peterson. Well, I certainly don't know how to predict the market.

Mr. Dicks. If we could, we would not be in this business, we would be out in the private sector.

Mr. Yates. No, I don't think so.

Mr. AuCoin. Would the Chairman yield?

Mr. Yates. I yield.

Mr. AuCoin. Are those 10 percent funds subject to appropriation or are they automatically available to the agency?

Mr. Peterson. Technically we take the 10 percent funds from the previous year and show them in the current year's budget and the committee does in fact merge those with the other appropriated funds and they lose their identity. They are in that sense appropriated although technically it is a permanent fund.

PURCHASER ELECTION ROADS

Now the other problem that we have is we also had to estimate how many purchasers would turn back roads to us instead of building them themselves under the small purchaser option.

Mr. DICKS. Is that phase two?

Mr. PETERSON. That is the second problem.

Mr. AUCOIN. How much of a problem is that?

Mr. PETERSON. It is a significant problem. Right now we have some $13 million in sales that are open that have a purchaser option in them and we do not have the money. Now technically that money comes from receipts and we have gone to OMB with a request to apportion that money so that we can go ahead and award those contracts.

Mr. DICKS. You are asking OMB to give you more receipts, more than 10 percent, to take care of the small purchaser option.

Mr. PETERSON. Technically that cannot come out of purchaser credit because it is not a purchaser credit situation. We actually have to lay out hard money because we have to award a public works contract.

Mr. DICKS. We are $13 million short.

Mr. PETERSON. We are $13 million short there right now and maybe another $20 million short by the end of the year. By then you will know how many purchasers turned back roads.

Mr. DICKS. Now why don't you move on to the next one.

TIMBER PURCHASER CREDIT

Mr. PETERSON. All right. The third problem is that every year we estimate how much purchaser credit we are going to spend for that year and we estimated that again for 1981 some 18 months in advance. We came fairly close but Region 6, as I understand it, did not have quite enough purchaser credit to award all of their contracts in September last year so they just held a few of them to award in October so they started out the year a little short in purchaser credit in 1981. Now they can do the same thing this fall except that sooner or later that will catch up.

Mr. AUCOIN. Can you tell the committee the magnitude of the contracts that could not be alloted as a result of that?

Mr. PETERSON. The best estimate I have, and we have asked the region to verify that, is probably it will be somewhere between five and ten million dollars that they will be short of purchaser credit which means that we will have to delay the award of those sales until October.

Mr. AUCOIN. Mr. Chairman, it is important to state here that these are not Federal funds, these are private funds. This purchaser credit is a budgetary item and in fact it is a purchaser's money that we are talking about here. Because of the peculiarities of the budget the Forest Service has had to estimate what would be needed in private dollars to reach a target and because of the miscalculation here even though no Federal dollars are involved a certain number of contracts were not allowed. Is that correct?

Mr. PETERSON. That is essentially correct. The purchaser lays out the money and builds the road and he gets credit for that much against the price of timber when he starts harvesting timber.

Mr. DICKS. But there is a limit on how often you can allow that to occur.

Mr. PETERSON. Service-wide, it is based on what is in the appropriation.

Mr. DICKS. What is our shortness there in terms of the authority?

Mr. PETERSON. Well, I think it is likely to be in the neighborhood of five to ten million but I have to tell you I don't have a real good number on that right now because we are still awarding contracts and we won't really know for another month or so.

ROAD SUPPLEMENTAL

Mr. DICKS. It says here:

> The Forest Service Chief's office in Washington, D.C., has been told that a supplemental appropriation of $62.5 million will probably be approved by the Congress in May and the money distributed in June.

Would this include the $25 million shortage in Region 6 which stems from the decline in timber sales revenue?

Mr. PETERSON. That is the 10 percent.

COMMITTEE ACTION ON PURCHASER CREDIT

Mr. DICKS. It is going to be important for us as this committee to make the decision on the level of purchaser credit that can be allowed.

Mr. PETERSON. Yes.

Mr. DICKS. Does it require change in authorization?

Mr. PETERSON. No. It is stated in our 1981 and 1982 budget and it is an appropriation item.

Mr. DICKS. The committee is going to have to make a decision rather quickly when we get the rescissions and appropriations bills.

Mr. PETERSON. Yes.

Mr. DICKS. We need to know rather quickly what adjustments should be made in purchaser credit. As my colleague from Oregon points out, it does not require expenditure, it is a level of authority that you cannot exceed and we should raise that level of authority so that these contracts can go ahead and be awarded so that the roads can get built.

Mr. PETERSON. We will try to provide that information to you about the first of May. That is about as early as we can do it.

Mr. YATES. The first of May.

Mr. PETERSON. For the purchaser credit part of it.

Mr. DICKS. We are going to mark up the bill before then.

Mr. YATES. The information will be brought to us after the supplemental date.

Mr. DICKS. We are going to mark up the bill around the tenth of this month.

Mr. YATES. We will have to get a number before that.

Mr. DICKS. Try to get us a ball park number. This does not affect outlays of dollars. Getting a good, solid estimate would be useful.

[The information follows:]

THE 1981 PURCHASER ROAD NEEDS

Our planned fiscal year 1981 purchaser road needs exceeded current obligational authority. However, through management actions we are reducing road standards on future roads to be constructed and have identified several timber sales that will be offered for sale in fiscal year 1981 but will not require purchaser road obligational authority until fiscal year 1982. We will not request additional purchaser road obligational authority in fiscal year 1981 to meet our timber sales program, except those roads where the purchasers elect to have the Forest Service do the construction work. In these cases we will request increases in the Purchaser Election account with a corresponding decrease in the Purchaser Road Credit account, thus maintaining the same program level.

MOUNT ST. HELENS TIMBER SALVAGE

Mr. PETERSON. Then the fourth problem in Region 6 is Mount St. Helens where neither the 1981 or 1982 budget contained money for Mount St. Helens' salvage because that came along after the 1981 budget had been put to bed and after the 1982 budget had been essentially completed.

Mr. DICKS. Does the salvage number count in the 11.9 figure?

Mr. PETERSON. Yes, because what we are going to do there, to the extent that we can, is to get purchasers to keep their green sales and move to the salvage sales so that we don't decrease the total supply that is available. We need to do that, as I pointed out yesterday, quite fast because of the deterioration of the salvage material.

EXPLANATION OF PURCHASER CREDIT

Mr. YATES. Mr. Chairman.

Would you explain to me how the purchaser credit works?

Mr. PETERSON. I will try to. When we advertise for sale a certain amount of timber we advertise it at what we call the appraised value, what we determine as the fair market value. Now in that whole package there might be $300,000 or $400,000 worth of roads to be built. We evaluate what each section is worth in terms of dollars and as he builds those roads he gets credit against the price of the timber for the construction of those roads and so it is just mainly an offset in receipts.

Mr. YATES. How do you know that the cost of the roads equals the amount of his estimates? Do you go over his books?

Mr. PETERSON. No. We estimate the value of those roads from experience in sampling the books of different operators.

Mr. YATES. That is allowed as a deduction from the price he will have to pay for the timber. How do you know that your estimate was actually the fact?

Mr. PETERSON. Well, it is as good as we can make them. If the estimate is too low, then technically the purchaser would bid less for the timber. If the estimate was too high, if we consider allowing him too much for the roads, then he would bid up the price of the timber.

Mr. YATES. Doesn't the amount that the Government receives from a sale of the timber depend in some measure on the cost of the road?

Mr. PETERSON. Absolutely.

Mr. YATES. Then how do you verify the cost of the road? Do you verify the cost of the road? Up to now all you have told us about is the estimating process.

Mr. PETERSON. We do have access to the company's books. We have industrial accountants and they examine a sample of a company's books and arrive at information that we use in the appraisal, including information on roads. We also use information on public works contracts that we advertise so we can also get what is necessary.

Mr. DICKS. You are in fact doing some road building yourself under the small purchaser options so you have a pretty good idea what roads cost.

Mr. PETERSON. Yes. I don't think the road costs are likely to be very far off.

Mr. YATES. Is that what you call the purchaser credit.

Mr. PETERSON. Yes.

Mr. YATES. All right. Thank you.

Mr. DICKS. Shouldn't they be the ones building some of the roads rather than you building some of the roads? Isn't that part of the idea of this?

Mr. PETERSON. Yes. The idea is that the purchaser is in there and he has the heavy equipment and he has the camp there or he has people that are there and it is more efficient for him to build particularly the lower standard roads than it would be for us to do so.

ROAD STANDARDS

Mr. YATES. Are those roads that last?

Mr. PETERSON. Yes.

Mr. YATES. I remember Mr. Duncan examining you and saying: Why do you have to build your roads so well? Your roads will last, I believe he said, for 200 years as opposed to the kind of road that a timber cutter would build. I would think that a timber cutter is interested in getting in and out of the cutting process as quickly as possible; therefore, the road that he would build would be just sturdy enough to last as long as the operation lasts. Is my impression wrong?

Mr. PETERSON. Well, I think if you left it up to each individual purchaser that might be so but, you see, the Govenment is actually paying for that road through allowance and stumpage.

Mr. YATES. That is right.

Mr. PETERSON. If we are going to be managing that land for the next several hundred years we will need the road for future sales and other kinds of access.

Mr. YATES. Do you make sure that the road is adequate to take care of your needs for some adequate time in the future?

Mr. PETERSON. Yes, we do.

Mr. YATES. Thank you.

Mr. LEISZ. Mr. Chairman, in fact we set construction specifications and we inspect against those specificatons to make sure that the work is done.

Mr. YATES. Good. We should put you in charge of the roofs in Washington.

Mr. DICKS. If we are going to last 200 years.

PURCHASER CREDIT AS A BUDGET ITEM

Mr. AUCOIN. What is the justification for having the purchaser credit count as a budget item in the first place? I don't understand.

Mr. PETERSON. Let me say first it was not our idea that that happened.

Mr. AUCOIN. Can you tell the committee how it happened?

Mr. PETERSON. I think there were several factors that caused that to happen when it was put in there in 1974.

Mr. AUCOIN. It was put in in 1974?

Mr. PETERSON. In 1974. At that time in calculating the 25 percent fund for the counties, the county's share was based on receipts minus roads and minus Knutson-Vandenberg deposits. The county's complaint was that they were paying 25 percent of this road cost and that they should really be building those out of appropriated funds. At that time the committees up here were saying why don't you ask for more appropriated funds to build these roads because you will have them in advance then and it won't cost the counties. They decided that purchaser credit was sort of a form of backdoor spending approach because it was not controlled, so they included it in the 1974 Resources Planning Act law. Personally I think that there are other ways to provide some control over that level of purchaser credit without making an appropriation.

Mr. AUCOIN. You would agree that there is an awkward burden here that goes beyond the need to control the factor of spending.

Mr. PETERSON. One of the reasons we have so much confusion is that we have created a whole series of pockets to put money in. We estimate all of those pockets 18 months in advance.

Mr. AUCOIN. It is very difficult.

Mr. PETERSON. We are trying to guess what each purchaser will wants to do in terms of road construction, we are trying to estimate exactly what the purchaser credit will do, and frequently get in mid year and find we have enough money but not in the right pockets.

Mr. AUCOIN. That's my point. It seems like the pockets are just incredibly numerous and complicated and I think the job must be just incredibly vexing. What would you suggest can be done to solve that problem?

RECOMMENDATIONS FOR RESOLVING ROAD FUNDING PROBLEMS

Mr. PETERSON. I think there are several ways to approach it and none of these have been fully cleared with the administration so I am just giving you some ideas.

I am not so sure, for example, that we need to retain the 10 percent fund. Since it is merged with the regular appropriated funds anyway, it is questionable whether it does anything particularly important that we need to do. We could also set a total appropriation level for appropriated roads and say this is the total appropriation and includes whatever comes in on the 10 percent fund which gives an authorizaton level. If the receipts are more or less that does not change our authorized program level.

Finally, we could remove purchaser credit from the appropriation but that would take a change in the 1974 Resources Planning Act.

Mr. AUCOIN. Would it take a change there of the Budget Act?

Mr. PETERSON. It is only in the Resources Planning Act.

Mr. AUCOIN. It is not in the Budget Act?

Mr. PETERSON. It is not in the Budget Act.

Mr. AUCOIN. Are you sure of that?

Mr. PETERSON. I am sure of that. The language in the Resources Planning Act made it subject to the Budget Act. My comments here are designed towards simplification of the whole thing and it actually would cost the taxpayer less because we spend less money tracking all these dollars around.

Mr. AuCoin. Tracking all the pockets.

Mr. Peterson. It is very, very confusing to our field people.

Mr. AuCoin. It is confusing to the committee and it has to be confusing to the public.

Mr. Peterson. It is.

Mr. AuCoin. Mr. Chairman, the committee might consider some report language that would suggest that the agency give some time to study this problem and come back with a recommendation. It is a thought that I would like to pursue.

[The information follows:]

Recommended Language for Resolving Road Funding Problems

To eliminate the problem with estimating the Roads and Trails for States, National Forest Fund (10 percent Fund), we recommend the Fund itself be eliminated. In 1982, an amount equal to an estimated 10 percent of National Forest Fund receipts could be added to the regular appropriated road construction monies. The following language would include the 10 percent Fund into road construction for 1982.

CONSTRUCTION AND LAND ACQUISITION

For necessary expenses of the Forest Service, not otherwise provided for, for construction and land acquisition [$378,586,000] *$552,393,000,* to remain available until expended, of which [$224,429,000] *$22,793,000* is for construction and acquisition of buildings and other facilities; [$353,662,000] *and $529,600,000* is for construction of forest [development] roads and trails by the Forest Service and construction and maintenance of forest [development] roads by timber purchasers[; and $2,495,000 is for acquisition of land and interests therein, required for management, protection, utilization, and research for the National Forest System and other Forest Service resources]. *(7 U.S.C. 428a, 1012, 2250; 16 U.S.C. 472a, 475, 501, 528-538, 555, 571c, 1601; 42 U.S.C. 8259; Public Law 95-495; Public Law 96-487; Public Law 96-514, making appropriations to the Department of the Interior and related agencies, 1981.)*

Mr. Dicks. As we get closer to the markup on the supplemental we will consider that.

SUPPLY SIDE ISSUES

I want to go back to one other question on the so-called supply side issues and that is that I understand that the supply of private timber in the Pacific Northwest has decreased substantially and will continue to decrease over the years. Therefore, timber companies will come to rely on Forest Service timber more and more and it is for this reason that President Carter suggested departing from the even flow policy in certain targeted areas.

In addition to providing for the many other needs of the Forest Service, I would hope that this subcommittee could consider the outyear needs of the thousands of small lumber mills in the Pacific Northwest who become increasingly more reliant on Forest Service timber for their livelihood over the next decade.

Could you tell the subcommittee what you think ought to be done to provide for an adequate supply of timber in the Pacific Northwest over the next decade?

Mr. Peterson. I don't think there is any one answer. I think that there needs to be an aggressive program of reforestation of the private lands and both the State of Oregon and the State of Washington are concerned about that.

Mr. Dicks. There was some legislation passed last year affecting tax treatment that would have impacted on this. What do you think the prospects for that are? What kinds of results do you expect from that?

EFFECT OF PACKWOOD BILL

Mr. PETERSON. I expect that we will get pretty good results. We have Senator Packwood's bill which allows a tax incentive for reforesting land after harvest. Now the effectiveness of that incentive will depend on whether the owner of the land will utilize that money for that purpose versus other very high interest bearing possibilities. If we could get interest rates down some that probably would help even more, but I expect some people use it even with the present interest rate.

Mr. DICKS. Why don't you go ahead. You were talking about the aggressive program in the private lands.

BETTER UTILIZATION OF MATERIAL

Mr. PETERSON. The second thing we have to do is to utilize the material better in the Pacific Northwest. That means not only the material in the existing salvage sale but there is a high need in my view for access to some of the stands that have high rates of mortality from insects and disease.

Mr. DICKS. That is another roads problem, isn't it?

Mr. PETERSON. That is another access problem.

Mr. DICKS. We talked about this last year. Have we made any progress on that?

Mr. PETERSON. We are making some progress but it is very hard to get agreement to make the level of investments that will be required to do that in a time of real budget problems.

Mr. DICKS. Could you use purchaser credit there——

Mr. PETERSON. In some cases you can but in some cases you are talking about primary access.

Mr. DICKS. Yes.

Mr. PETERSON. And the value of the material that is available in the first level of harvest may not be enough to carry all those costs. It may be economical over 20 years or so but it may not be economical for the first entry. You may have to make the first entry with the appropriated funds and then rely on purchaser credit.

Mr. DICKS. Last year in testimony Mr. Yates asked the question, "You estimate that if only 10 percent of the 5.5 billion cubic feet of dead and dying timber were utilized, the value would exceed. . ." that can't be right.

Five hundred million?

"What portion can economically be removed and sold?" This is a question to Dr. Buckman.

Mr. PETERSON. Last year we began a major cooperative effort between our Forest Products Lab and the forest products industry to try to improve the utilization of the materials delivered to the mill. We expect within the budget that we can pick up about half a billion board feet per year additional through improved utilization. There are a whole series of things ranging from the Sawmill Improvement Program to getting better utilization from the logs, trying to use fuel oil in connection with harvesting to improve the economics.

TIMBER DEPARTURES

The third thing that needs to be done, and you have already alluded to, is that we need complete compliance for National Forests where departure is a viable alternative. We need to get those plans on line which is a prelude to increasing the harvest level. We are not waiting though until those plans are finished to do some advance sales preparation so that if we did decide to depart we would have some advance sale work done. There is $5.6 million in the current budget and $5.6 million proposed in the 1982 budget for that advance sale preparation.

Mr. AuCoin. We will cover some issues in your statement on forestry, you haven't covered any of that yet.

Mr. Peterson. Could I add one item on this timber salvage that we just discussed?

Mr. AuCoin. Yes.

PREVENTION OF SALVAGE DUE TO ACCESS

Mr. Peterson. I should point out one of the things that prevents salvage in some of this material is access. The timber salvage fund that we have provides for preparation of the sale and provides for survey, design, and supervision of roads but is specifically not available for road construction. That is a special limitation on the salvage fund. We have been criticized in some places for not making that available for road construction. People do not understand that we are limited by the law itself.

PURPOSE OF TIMBER SALVAGE SALE FUND

Mr. AuCoin. For what purpose are those funds used?

Mr. Peterson. They are used for sale design, for appraisal preparation, for the survey and design of the road, for the supervision of the harvest operations, including road construction but not for road construction per se. That is just a limitation in the National Forest Management Act where the salvage fund was created.

Mr. AuCoin. But it is true, is it not, that road construction is the major expense in the salvage operation?

Mr. Peterson. That is correct.

Mr. AuCoin. Yet under that provision——

Mr. Peterson. Under that provision you cannot do it. As I mentioned, that has not been understood.

Mr. AuCoin. I wonder if it has been understood by the Congress when it wrote that restriction.

Mr. Peterson. In all fairness it was written by Senator Bellmon of Oklahoma who was interested in getting this material salvaged and many times it is very low value material. He recognized that you could not build very much of a road system with it so I think there may have been a feeling that there was not much money there anyway. Prices today are such that in some cases there is some money that could be used for roads but it is not available. I bring that to your attention particularly because there has been some criticism in the Northwest that we have not used it to build roads.

Mr. AuCoin. I have heard the same criticism.

Before we get to the State and private portion I would like to stay on this question of salvage for just a second. I do intend to come back to this later but I am also sensitive to the Chairman's desires to cover some of the other issues.

MOUNT ST. HELENS' NEEDS

Come back to Mount St. Helens for just a second. I listened to the figures you gave the committee yesterday and the figures the committee has had before in terms of estimates of what it is going to take to do the job and then I also read with interest the quotes from the Oregonian article that I mentioned to you yesterday and that Congressman Dicks just referred to. I can't follow the changes in the numbers. Maybe it is because I do not understand the new math.

Mr. PETERSON. Frankly, I could not understand all the numbers either.

Mr. AuCOIN. First of all we have a $55 million estimate that has been used to complete the job. Then Mr. Torrence, the Deputy Regional Forester, is quoted in the Oregonian article that I mentioned as saying:

> The Gifford Pinchot National Forest needs $31.6 million to rebuild the bridge and roads system so extensive salvaging of dead timber near Mount St. Helens can begin and be completed.

That is $31.6 million. Yesterday you told the committee that you got reprogramming from Alaska, you got about $9 million in funds and carryover funds of around $4.3 million totaling $12.3 which will do half the job and that the full job would take $25.6 million, something in that range.

Which figure is accurate and how did you arrive at it? It is important for everyone to understand what is needed to do the job. How do you account for all these differences in that situation?

Mr. PETERSON. We had the Forest Supervisor, Bob Tokarczuk in the day before yesterday to go over these numbers with him and Dave Trask, the Regional Engineer. The $31.4 million is made up of the $25.2 million that I mentioned yesterday in terms of total appropriated funds plus $6.2 of purchaser credit so that is where you get to that 31.4. Now they are telling us that these are their total needs.

Mr. AuCOIN. Will that bring out 700 plus million board feet?

Mr. PETERSON. No, that is what we will use in fiscal year 1981. That will provide the basic road systems or basic access for opening up the 700 million board feet that flow over it. It will not provide all the roads they need.

Mr. AuCOIN. How many board feet will that buy?

Mr. PETERSON. We think about 400 million feet, 450 million feet can be moved without appropriated funds plus provided basic access for the balance.

Mr. AuCOIN. But you don't have the $25 million in sight, all you have is $12.3 million in sight, not counting purchaser credit as I understand it.

Mr. PETERSON. That is correct.

Mr. AuCOIN. Are you planning any purchaser credit in addition to the 12.3 that you have identified?

Mr. **Peterson**. Let me go back over it. We expect to use technically $1.9 million for forest road construction in the carryover fund plus $2.4 million for temporary roads and bridges for a total of about $4.3 million. Then we expect to ask for reprogramming of $9.7 million from Alaska leaving us with a balance of about $13.6 million that we don't now have in appropriated funds. Now if we don't get those appropriated funds, it will take longer to haul out the salvage material which is what I was mentioning yesterday. It will probably take about six years or so to get it out.

Mr. **AuCoin**. And it would be 400 million board feet this year if you don't find that extra $15 million?

Mr. **Peterson**. Four hundred fifty million feet this year and next year.

Mr. **AuCoin**. I thought you needed the $25 million total to get 450 million board feet out.

Mr. **Peterson**. Yes, it provides the basic access for the 450 million feet. What they want to do is go in and put in that basic road system before they start moving timber this year and next year so they don't have to try to reconstruct roads and bridges while they are trying to haul out material.

Mr. **AuCoin**. What we need to know is how much timber is going to be moved out by the end of June. If you are able to find and use only $12.3 million this year, what would you need incrementally year by year thereafter while adhering to a reasonable timetable. I can't tell right now, what the first installment would be, what it would produce, and in what period of time it would produce it.

Mr. **Peterson**. If we merely get the money that we have asked for in the program right now plus the $1.9 million, if we just get that amount of money——

Mr. **AuCoin**. The $1.9 million being the carryover funds completed to roads?

Mr. **Peterson**. Yes. If we get only those two numbers which is 11.8 million, then we can access the 400 million board feet but we will have to use an additional amount of purchaser credit because we will be relying more on purchaser construction.

Mr. **Leisz**. It is about $10 million in purchaser credit.

Mr. **AuCoin**. Would you need $10 million in purchaser credit.

Mr. **Leisz**. Yes.

Mr. **AuCoin**. Beyond the limits we have right now?

Mr. **Leisz**. Yes.

Mr. **Peterson**. That is correct.

Mr. **AuCoin**. For this year?

Mr. **Peterson**. For this year.

We have taken a series of assumptions and said assuming we have only what we have scheduled now for reprogramming and we somehow reprogrammed from somewhere to get this $10 million purchaser credit, which means we will have to defer some sales throughout the Forest Service to do that, we would do that in view of the importance to the salvage of Mount St. Helens. We could probably get 400 million feet sold in the next few years but because we would be hauling it over a less adequate road system we could not haul as much and it would stretch out the salvage to about six years which means we will lose a lot of value, the most efficient thing to do would be to go to the total of $23.7 million additional or

$13.6 million additional right now because that allows you to salvage material before it deteriorates.

Mr. AuCoin. That $13 million would be appropriated funds.

Mr. Peterson. Yes, appropriated funds.

Mr. AuCoin. Or purchaser credit?

Mr. Peterson. Appropriated funds.

Mr. AuCoin. You still would have to have the $10 million in purchaser credit.

Mr. Leisz. No, less purchaser credit because we would be doing more of the job by contract and less through purchaser credit so we would be down to about $6.2 million.

Mr. AuCoin. And that would give you the roads of such permanence in nature that you would be able to get it out efficiently and in volume and you would lose that if you had to depend on $10 million to purchaser credit.

Mr. Leisz. Yes.

Mr. Peterson. What we will actually do is pave some of those main roads so that when ash settles on them we can squeeze it off and get back in business again. You can also haul higher volumes on them because you don't have all this ash blowing up to restrict the traffic. If you go with just dirt roads in there for this lower amount and allow purchaser construction, then the sequence of the sales becomes quite difficult.

Mr. AuCoin. It does indeed.

Mr. Peterson. It will be about six years before you get it all out.

Mr. AuCoin. You are talking about an incredible amount of waste.

Mr. Peterson. That is exactly right.

Mr. AuCoin. Why didn't you consider this in the supplemental?

Mr. Peterson. The road supplemental actually came up here several months ago. We did not have and still do not have an adopted plan for Mount St. Helens as you know.

Mr. AuCoin. You could have seen the facts then as you have stated to the committee today.

JUSTIFICATION OF MOUNT ST. HELENS SUPPLEMENTAL

Mr. Peterson. Well, in putting this together these numbers are only about a month old. The region just completed their detailed plan.

Mr. AuCoin. Did it take a detailed plan to see that? Relying on close to $10 million in purchaser credit for the roads for the salvage operation is going to cause some severe problems.

Mr. Peterson. In retrospect we probably could have provided a ball park number earlier but we would not have had a number that we could have defended very well when you are asking for another $25 million. We usually have pretty good data to support such a request.

Mr. AuCoin. It seems to me that a substantial problem exists. If we cannot do anything to correct that error in your estimate. The estimate is so far off that it could have just in the general description of the magnitude of the problem been able to defend a larger supplemental.

Mr. Peterson. Let me point out there was not an error in the estimate, no estimate was made.

Mr. AuCoin. That is just as big a problem, isn't it?

Mr. Peterson. Well, it is to you. I guess our problem is being able to provide sufficient data to justify a supplemental within the administration because we have to look at all other ways that we might be able to accomplish our work and squeeze that money out from somewhere and that is essentially what we are doing in coming up and asking to reprogram money. We are squeezing out some money.

Mr. AuCoin. But in doing that we are losing a great deal more than we are saving. If we have timber that rots over a six year period of time, that has an impact in revenue to the Treasury, certainly it has an impact on jobs. It has an impact all the way around and if you calculate the total economic cost of that it is going to outweigh any temporary budget appearance.

Mr. Peterson. That is correct. We do have now, I think, a reasonably good analysis of five different options and different rates of salaries and different amounts of funding. The one I mentioned to you is the most efficient considering both loss of material as well as cost.

Mr. AuCoin. Before I leave this I want to be sure I understand. Given the appropriated funds that you think you can collect and commit, and given the $10 million in purchaser credit, is it your estimate that you would be able to bring out, within two years, 400 million board feet?

MOUNT ST. HELENS COST OTHER THAN ROADS

Mr. Peterson. That is right. I should tell you that so far we have been talking only about road costs and that is not the whole cost.

Mr. AuCoin. What else do you have to tell us?

Mr. Peterson. We have a cost of the preparation of the timber sales. We have the cost of handling all the visitors who want to come in there and walk up on Mount St. Helens.

Mr. AuCoin. Is that as high a priority as salvaging the timber?

Mr. Peterson. No. It is priority if you worry about people getting killed so I think it is a pretty high priority.

Mr. AuCoin. Why let them in in the first place?

Mr. Peterson. Well, that is what we are actually doing. We are trying to keep people out. In order to keep them out, we have tried to provide a couple of mobile visitor centers to inform the public how far they can safely go in. So we have the operation of mobile visitor centers that was not considered in the budget.

Mr. AuCoin. Then the timber sales account has to be increased beyond what is provided in the budget revision in order to accomplish the 400 million board feet target, is that right?

Mr. Peterson. Timber sales, the preparation side of it, yes, sir.

Mr. AuCoin. Is that account inadequate if we want to achieve 400 million board feet in the next two years?

Mr. Peterson. We won't have an inadequacy, we just don't have anything in there for Mount St. Helens' salvage.

Mr. AuCoin. Nothing at all?

Mr. Peterson. Nothing at all.

Mr. AuCoin. What was your request to OMB?

Mr. Peterson. At the time our budget went up, I think it was last July, and Mount St. Helens erupted on May 18, all we did at that time was to advise that there were no items included for Mount St. Helens, but it would be coming later. We now have enough information that we think we could support a request but it has not yet gone forward.

Mr. AuCoin. When do you intend for it to go forward?

Mr. Peterson. Well, I hope in the next week or so.

Mr. AuCoin. Would that be another supplemental?

Mr. Peterson. Yes, that would be for 1982.

EXPECTED RECEIPTS FROM MOUNT ST. HELENS' SALVAGE

Mr. AuCoin. What will be the difference in the receipts that would accrue to the Treasury from 400 million board feet being salvaged and 450 million board feet in the next two years?

Mr. Peterson. In looking at net receipts which takes receipts and deducts costs of getting it, if you salvage only 400 million feet versus 450 million feet, you lose about $10 million in net income to the Treasury.

Mr. AuCoin. Is that a net figure?

Mr. Peterson. That is a net figure. I might also point out that not only do you lose that $10 million as a net figure but you lose material for the mill that is already quite short so if you didn't try to factor in that benefit, that material, that is just net receipts to the Treasury.

Mr. AuCoin. I want to come back to this later on in the afternoon.

STATE AND PRIVATE FORESTRY

Let's leave that for the moment and go to State and private forestry. Your request for State and private forestry is $69,505,000 and that is a decrease of $3.6 million from fiscal year 1981 and a decrease of $3.1 million from the Carter budget. The 1982 request represents 69 percent of the 1982 RPA.

Mr. Peterson. The difference between the Carter budget and the Reagan budget for State and private forestry is basically $3 million in the State grant for the offset to the Boundary Waters Canoe Area plus some across-the-board savings from less travel, and so on, but basically the change between the Carter budget and the Reagan budget was that Canoe Area item.

Mr. AuCoin. On October 14, 1980, President Carter signed Public Law 96–451 which includes a reforestation tax incentive proposal as an amendment. The benefit, which will principally go to small and medium-size landowners, is a 10 percent investment tax credit plus seven-year amortization on the first $10,000 of capitalized reforestation expenditures each year.

It has been stated that over $500 million annually is available to private foresters by means of Federal programs. Do you agree with this figure?

Mr. Peterson. I think that must be referring to the use of capital gains.

Mr. AuCoin. That is part of it.

Mr. Peterson. And the depreciation of equipment and so on which is available money to add to lots of other kinds of manufacturers. It is not unique to the private forest industry, but there is a capital gains provision because the timber must be held so long.

FORESTRY INCENTIVES PROGRAM

Mr. AuCoin. One of the other programs available to private nonindustrial landowners is the Forestry Incentives Program which provides for cost-sharing between the landowners and the Federal Government for the planting and timber stand expenses.

What other programs, outside the Forest Service, are available to private forest landowners? What is the status of these programs in the Reagan budget?

Mr. Peterson. Might I ask Deputy Chief Roget to give you a little bit of a rundown on what we know about the use of the Packwood bill today and then address these other problems.

Mr. AuCoin. Yes.

Mr. Roget. Thank you.

INFORMING LANDOWNERS OF PACKWOOD BILL

On the Packwood bill the Internal Revenue Service has put out news bulletins and informational bulletins to help acquaint people with the provisions of the Act. We are setting up within the Forest Service, in cooperation with some of the other agencies, a method to try to track what happens as a result of the provisions of the Packwood bill. Ultimately we should be able to get information and returns in terms of the public investment as to what is happening so we are going to track it very carefully.

RENEWABLE RESOURCES EXTENSION ACT

As for other agencies that assist in programs relating to privately-owned forest lands, we should mention the Agricultural Extension Service in the Department of Agriculture. Extension forestry has not been a large program within the Agricultural Extension Service. In 1978 Congress passed, and the President signed, the Renewable Resources Extension Act which would provide up to $15 million annually that would be targeted specifically for extension forestry and related renewable resources activities.

Last year the Department requested funding to implement the Act, but the funding request was not acted upon so as of this date specific funds have not been provided for implementation of the Renewable Resources Extension Act. We are very hopeful that this will be reconsidered when we look again at the 1983 budget.

Mr. AuCoin. Are there funds in the 1982 budget?

Mr. Roget. No, to my knowledge there are not.

This appropriation comes to the Extension Service through the agricultural appropriation.

Mr. AuCoin. Other programs?

ASSISTANCE TO LANDOWNERS THROUGH SCS

Mr. Roget. The Soil Conservation Service assists landowners in making decisions on land use work through preparation of conservation plans. At the point where the landowner decides that he wants forestry assistance, the request for specific forestry assistance is referred to the State forestry agencies. As you know, the State forestry agencies do the on-the-ground work through our various State and private programs.

Mr. AuCoin. What is the impact on that program under the Reagan budget?

Mr. Roget. The Soil Conservation program is essentially maintained through this activity so that it should be okay.

Mr. AuCoin. Are there other programs?

AGRICULTURAL CONSERVATION PROGRAM

Mr. Roget. Yes, sir. You have mentioned the Forestry Incentives Program. That money, of course, is appropriated through the Agricultural Stabilization and Conservation Service. In addition the Agricultural Conservation Program under the same agency carries money for forestry activities. Under the ACP, Agricultural Conservation Program, money is not specifically targeted towards timber production purposes as it is in the Forestry Incentives Program. It is more of a general conservation program, of which forestry is a rather important part.

The 1982 budget, I should mention, for the Forestry Incentives Program is at the $10 million level. Last year the Congress appropriated $12.5 million for this purpose.

Mr. AuCoin. Does that pretty much cover it?

Mr. Roget. Yes.

ADDITIONAL INCENTIVES FOR TIMBER PRODUCTION

Mr. AuCoin. Do you believe additional tax incentives or programs are needed to encourage timber production from these private nonindustrial lands as well as more reforestation? If you do, what form should they take?

Mr. Peterson. I think Senator Packwood's bill that passed last year looks very good in terms of being of use to the small owner who does not have enough land or capital to benefit from capital gains. I think you need both the capital gains from that end for most people as well as the Packwood incentive. I really think we need to look at the new Packwood incentive for two or three years to know just how it works and how effective it is. I would not recommend at this time any more incentives than are available at the present time.

GAO RECOMMENDATION FOR ASSESSMENT

Mr. AuCoin. In a report issued January 21, 1981 entitled "New Means of Analysis Required for Policy Decisions Affecting Private Forestry Sector," GAO concludes that better data and analytical tools are needed to judge the impact of Federal programs and policies on increasing timber supplies from privately-owned lands.

Are you planning to undertake the assessment recommended by GAO of various alternative incentives, such as expensing of site preparation costs, Federal loans or expansion of direct financial assistance?

Mr. Peterson. We already have a group of people working on that right now both from the standpoint of looking at data that is already available as well as looking to what additional data needs it might require to examine this. We think that given a few months now we could probably present a reasonably adequate analysis of State and private activity except for the new Packwood bill which needs time to run.

Mr. AuCoin. But otherwise within approximately two weeks?

Mr. Roget. I would like to add to that. As a result of the policy decisions in the RPA Recommended Program for State and private forest activities we are making a very substantial effort to look at the programs and analyze them in terms of trying to determine the relative cost effectiveness of various activities. I have a couple of samples with me. For example, we just completed an economic study of our Sawmill Improvement Program that I would be delighted to share with you.

We also recently completed a study of retention of forest plantings that have been cost shared with private land owners. There was a question as to whether the private land owners retain the plantings and keep managing them. These are just a couple of examples. We are undertaking a new study of the Forestry Incentives Program, building on the study that was done in the 1974 program year. We are looking very intensively at the fire program and the Forest Insect and Disease Protection program so that we can better determine the Federal role and the public benefits. So we are undertaking this very substantially and analyzing and looking at it all.

Mr. AuCoin. In covering the issues raised by the GAO?

Mr. Peterson. Yes. We basically agree with GAO although there have been some spot analyses of this kind. There needs to be a systematic follow-up on the Packwood bill so we know what it is doing, and we plan to do that.

Mr. AuCoin. GAO also asserts that better coordination is needed among Federal, State and private organizations that provide forestry assistance and that a necessary precondition is to evaluate nonindustrial acreage in order to identify those lands that truly have important biological and economic opportunities.

Do you agree with the need for such an evaluation and are you planning to undertake it?

Mr. Peterson. Well, I don't fully agree with GAO's assertion there because in looking at the service to private land owners, if you add the work that is done by the Extension Service, by the Soil Conservation Service and by the Forest Service, we contact less than five percent of the land owners per year which does not even keep up with turnover of owners. Contrast that with the standard on the agricultural side which averages one contact per year per farmer. You can see that the level of effort in forestry assistance is low. We have coordination mechanisms at the State level that are not all that formal, but there are State level committees. Based on the information we have, it is working pretty well. We are reluctant to intensify bureaucracy to further coordinate that activity.

TARGETING FORESTRY ASSISTANCE PROGRAMS

Mr. AuCoin. But in the absence of that kind of information how do you target your forestry assistance programs where they are likely to have the most economic impact?

Mr. PETERSON. We did complete a study with industry about six months ago looking at the productivity of nonindustrial private forest land throughout the country. That study indicates that there are substantial opportunities on the nonindustrial private lands. For example, there are 124 million acres of nonindustrial forest land that would provide more than a 4 percent return on investment above inflation. There are 75 million acres yielding 50 cubic feet per acre per year or more, and 78 million acres yielding between 20 and 50 cubic feet per acre per year. We think we have a reasonable handle on the productivity of this land and where it is and are working with industry, consulting foresters, and with the Extension Service and others to try to serve the owners where the better opportunities are.

We also agreed last year to help sponsor a price reporting system which will provide price information to the land owners similar to what has been done for a long time in commodity crops and livestock. What it amounts to is we subscribe to a private service, which is providing landowners with information that their timberlands are now valuable. Many people don't really understand the value that they have there now. They don't understand the value they could gain by doing certain things. We know it is not all that easy since we are dealing with over seven million landowners.

Mr. AuCOIN. What is the number, Mr. Peterson?

Mr. PETERSON. Seven million individual land owners.

Of that seven million though, as I recall, between four and five million don't own very much so there is really a target of about three million landowners that own the bulk of the commercial forest land. I think we have a reasonably well coordinated program now, particularly with the support we have gotten from industry in the last two years, to try to help target these acres.

FUNDING FOR FOREST PEST MANAGEMENT

Mr. AuCOIN. You are requesting $24.4 million for forest pest management and that is a decrease of $60,000 from the original request but an increase of $2.3 million over 1981.

Do you believe your budget request includes an adequate amount for prevention of pest infestation and damage? What amount, and what types of activities are included?

Mr. PETERSON. I will ask Mr. Roget to give you the details but let me first tell you that again we have to estimate at least 18 months in advance what the winters are going to be like because that has a lot to do with insect population. We have to estimate a lot of other factors such as drought which affect the insect population. This represents our best judgment of the kind of budget we put together although I could not guarantee a year from this summer that that will be adequate. In fact, if I had to hazard a guess, I would say that with the continued drought situation in the South and the Southwest and the continuing buildup of the mountain pine beetle, gypsy moth and spruce budworm, it may well turn out to be inadequate. But it was the best number we had at the time the budget came forward.

Mr. ROGET. The 1982 budget recommends $6,260,000 for suppression activities. The recent projections of needs indicate that we are probably going to be short by an additional $8.3 million. The Gypsy moth. for example, in Pennsylvania has gone up much this year and the indications are that because of the drought conditions and so on, there will also be a very bad year next year.

Mr. AuCoin. That is $8 million above?

Mr. Roget. Above the $6.2 million.

Mr. AuCoin. So you know the budget is out of whack based on your needs for that much.

Mr. Roget. The budget is going to be short of the needs.

Mr. Peterson. I say again that this is the projection right now. If we should have a very severe winter this year, it might be down so it could change. We are not asking at this point for additional money. At one time there was a contingency fund which was available to handle this changing suppression problem. That is the most difficult thing to predict, the suppression side of it. The prevention and detection is not as hard to estimate. We have in the last three years utilized the contingency funds which are no longer available for that purpose.

Mr. AuCoin. Is that an appropriated——

Mr. Peterson. It is a fund available for suppression activities as warranted.

Mr. AuCoin. The funds were used and they are not going to be refunded.

Mr. Peterson. They are not being replaced because again we are estimating a long ways in advance and I am not sure that we will need it next year.

Mr. AuCoin. You will be before the committee next year and we will remind you of the statement you made.

Mr. Peterson. I will say that $8 million is our best judgment as of today.

MAJOR INFESTATION PROBLEMS

Mr. AuCoin. What have been the major pest infestation problems encountered in the past year and what do you project will be the problem areas for the next several years?

Mr. Peterson. The biggest problems in terms of control are the spruce budworm which involves both the United States and Canada, the gypsy moth up in Mr. McDade's County in Pennsylvania, the southern pine beetle in the southern part of the United States and the mountain pine beetle. Those are the four major ones. Now we have all kinds of other insects that are a problem but those are the four big ones.

STANDS SUSCEPTIBLE TO INFESTATION

Mr. AuCoin. One method of prevention you plan to emphasize is to "reduce the risk of land managers creating forest conditions which are highly susceptible to insect and disease problems." What does that mean?

Mr. Peterson. That means trying to improve the thrift of the stand so that you don't have a stagnant stand of decaying old trees that are highly susceptible to insects. Probably one of the more obvious uses of this tool has been in what we call the front range right outside Denver where the private landowners have banded together and have taken out the disease-weakened and insect-attacked trees resulting in a thrifty stand. In so doing they solved their problem. That is a much better long-term solution than is trying to end the spread of something; for example, the mountain pine beetle in the West right now. The long-term answer to the mountain pine beetle is to turn over those stagnant stands that are right at the age where we get an epidemic of mountain pine beetle. It requires management practices to turn over those stands.

SURVEYS AND TECHNICAL ASSISTANCE

Mr. AuCoin. Can you be more specific as to the requirement for the increase of $1.1 million for surveys and technical assistance?

Mr. Roget. Yes, sir. The basic purpose is to try to be able to increase our survey intensity so that we can get a handle on what is happening with insect disease outbreaks farther ahead in time so that we can try to institute more preventative action. The idea is to try and emphasize preventive management activities that we can take by identifying susceptible areas, and looking at the infestation, and taking timely preventative actions to forestall it.

Mr. Peterson. That is aerial detection.

Mr. Roget. Aerial detection activity.

Mr. AuCoin. You are asking for $1.1 million more for this purpose and yet it is stated that you will be able to survey 493 million acres in fiscal year 1982 and that is down from 657 million acres surveyed in 1980.

HIGH ALTITUDE SURVEYS

Mr. Roget. That is a good question. In the previous year we did a high altitude survey at a relatively low cost per acre, it was a one time type of thing. We have been trying to see how it would work out. Because we did it on a very extensive basis using very high altitude photography the accomplishment of acreage figure for last year is relatively high.

Mr. AuCoin. You won't be using that method this time?

Mr. Roget. No. We did this as a test, it is not something that we would do every year and we really did it to try some of the high altitude photography.

Mr. AuCoin. Did it work?

Mr. Roget. Yes, it worked fairly well. It is something we just don't need to do often, and it was a relatively inexpensive type of photography.

Mr. AuCoin. If it is inexpensive and you can cover more acres, why not do it all the time?

Mr. Roget. It does not provide intensive data. We tested it for its value in providing high altitude generalized information on a relatively infrequent basis.

Mr. Peterson. Let me see if I can give you an example. We were trying to find out what the southern pine beetle was doing overall, how it was moving and so on. With high altitude photography we can see a big area on one photograph and you can get some of those overall situation kinds of reports. In doing that with high altitude photography and the low photographic resolution, we missed a lot of spots on the ground that had insects. We may do the high elevation type of thing every several years but that is not a substitute for the more intensive surveys; in fact, one of the places we missed was Senator Stennis' land, by the way, that had an outbreak on it.

Mr. AuCoin. You missed what?

Mr. Peterson. We missed Senator Stennis' land that had an outbreak.

Mr. AuCoin. You better fly lower then.

Mr. Roget. We reported the accomplishments in millions of acres surveyed for that year.

TIMBER LOSSES TO INSECTS AND DISEASE

Mr. AuCoin. I see.

The committee needs to know how many cubic feet of growing stock and board feet of saw timber were lost to insects and diseases in 1980. Do you have that figure?

Mr. Roget. Yes.

I am sorry, we don't have it for 1980. The latest figure we have right now is from the survey of 1976. We are saying in 1976 4,034,400,000 cubic feet of growing stock and 12,145,300,000 board feet of sawtimber were lost.

Mr. AuCoin. Why is your data so old?

Mr. Roget. Again it is a problem of being able on a very extensive basis to run a nationwide survey. In 1976 we were particularly concerned with the problem of the pine beetle, among others. We made a very substantial effort to run the nationwide survey involving all of our regional offices and much of our organization for a period of several months. Again we are hopeful that some of the new survey detection methodology we are developing will help us.

Mr. Peterson. You have to not only know how many trees are involved, but you have to know the volume of each tree. So you are talking about a lot of additional data. You have to do it on some kind of a statistically sound sample. It is a major job and we don't see it as one that we need to do every year. Probably a five year interval is adequate.

BARK BEETLE SUPPRESSION

Mr. AuCoin. Why are you reducing suppression of bark beetles, using thinning techniques, in the amount of a $1.5 million decrease? Aren't they a problem any longer?

Mr. Roget. Yes. We simply had to set priorities in developing the budget.

Mr. AuCoin. Based on the magnitude of the problem you set a lower figure?

Mr. Roget. Well, frankly in preparing the budget we put the money into direct suppression. The $1.5 million reduction, would have been used in demonstrating thinning as the method of reducing bark beetle infestation and it just had to take a lower priority.

Mr. AuCoin. Because of the reduced magnitude of the bark beetle problem or for some other reason?

Mr. Roget. No, because of the funding constraint, and trying to live within a funding constraint. We just had to go back to the budget and adjust it.

Mr. AuCoin. There is no reason to believe that the problem has been reduced to this extent? The problem itself has not been reduced to the extent of making a decision on that basis?

Mr. Roget. No.

Mr. Peterson. This is an experimental program. We do have some work that is being done in 1981 that will be available for monitoring so there will be some information, but not as much as we had originally hoped to have.

Mr. AuCoin. Has David Stockman ever paid a visit to one of the National Forests?

Mr. Roget. I don't know.

Mr. Peterson. Not to my knowledge. He is from Michigan and he may well be familiar with some of the National Forests. I don't know.

NORTHWEST TIMBER SUPPLY

Mr. Dicks. Do you think we are doing all we can at the government level to minimize the impact of this decrease in private timber available for harvest in Region 6 in the Northwest?

Mr. Peterson. No, I don't think we are doing all the things that we could do. I think we have got several things underway that will help, including the completion of land management plans on forests where departure might be a viable alternative. We have worked hard to increase utilization in that region which has helped. We are hoping to develop more fuel markets in that area so that the material that does not now economically flow in the market will do so.

Mr. Dicks. Tell me a little bit about that. What are we trying to do there?

Mr. Peterson. Well, one idea is that instead of spending money to burn slash in the woods we would provide a purchaser credit similar to what we do for roads to get the material removed and then hopefully it would go into the markets. The other thing that is being done by industry itself in the Pacific Northwest is a substantial improvement in utilization through their own use of wood for energy. There is quite an active program in the Pacific Northwest to utilize wood for energy and since that saves oil and other fuels then they can afford to bring in materials that they otherwise would not have brought in.

I mentioned the need to reforest private land the need to increase the productivity of national forest land I have already dealt with, but I don't see a simple answer to the Pacific Northwest timber supply.

Mr. Dicks. Now that the Japanese market is softening, will that help the supply situation?

Mr. Peterson. I think it will in the short run. I am not sure how it will in the long pull. Because if it is just a three or four months pause, the Japanese imports likely would not have any great effect. I think the more likely effect in the case of the Japanese is that if they move to import finished material rather than logs, reduce the amount of logs as it purports to the total, that will provide more opportunity for domestic mills.

COST OF SALES PROGRAM

Mr. DICKS. Can you tell me the cost of the 11.9 billion board foot sales program broken down by program; i.e., road costs, administration, sales preparation, et cetera?

Mr. PETERSON. Yes, we can. This is for the whole 11.9. There is $936.2 million all together which includes $136.2 million which will prepare and offer for sale 11.9 billion feet. This includes $5.6 million to do some advance sale preparation wherever we might have a departure. I can give you a line item breakdown on that if you would like it for the record, it is pretty lengthy.

Mr. DICKS. Why don't we supply it for the record. That is fine.

[Material to be supplied follows:]

THE 11.9 BILLION BOARD FOOT TIMBER SALES PROGRAM

The following table shows costs for the 11.9 BBF timber sales program:

[In millions of dollars]

National forest system:	
Sales preparation	$168.6
Sales administration	40.0
Subtotal	$208.6
Support:	
Minerals	$1.6
Landline	22.7
Fire	3.4
Road maintenance	45.6
Recreation	11.1
Wildlife and fish	6.1
Range	.7
Soil and water	7.0
Subtotal	$98.2
Total, NFS	$306.8
Construction and land acquisition:	
Road construction	$255.9
Purchaser constrtuction	242.5
Total, C&LA	$498.4
Brush disposal	$46.4
Purchaser election	40.2
Timber salvage sale	2.4
Tongass timber supply fund	42.0
Subtotal	$131.0
Total	$936.2

Mr. DICKS. You said if we wanted to go to a sales level of 12.2 billion board feet, it would cost us an additional $21 million.

Mr. BEASLEY. $21.2 million.

Mr. PETERSON. If we sell the material that we prepared in 1981, it would cost $21.2 billion.

MARKET INCREASE

Mr. DICKS. Last year you testified that there was merit to an increased inventory because when the market swings up this inventory will allow bringing material on the market in a more timely manner. When do you see the market swinging up?

Mr. PETERSON. Well, I guess the experts are in disagreement on this but most consider that it would likely happen sometime in 1982 or possibly late in 1981. Interest rates are now dropping which is the primary control. I think it is important that we have a consistent timber sale program both to prevent people buying timber at such high prices that they cannot move it when the market picks up and will have to hold it several years, and also to provide a supply that is immediately available.

ROAD CONSTRUCTION

Mr. DICKS. Let's talk about road construction for just a moment. Is there anything else we could do in terms of reprogramming money or making some arrangement with the Treasury in advance of the supplemental to avoid the disruption in the road construction program?

Mr. PETERSON. Yes, there is something we already have underway and that is a notification to Congress that we will apportion on the deficiency basis, on the basis that we will run out of funds, and I expect that notification will be out soon. That merely tells you that we are going to hire crews and go ahead and that the money will be appropriated in June or so. As far as I know, that is the only additional thing that can be done at the present time.

DECREASE FOR FORESTRY RESEARCH

Mr. DICKS. Concerning the $10 million decrease for the January budget for forestry research, I firmly believe that forestry research will provide us with the needed technological breakthroughs to increase both the timber volume yield and timber utilization in years to come. Do you feel that this decrease can be handled without detriment to the overall program?

Mr. PETERSON. We worked very hard to try to keep the research program as close as we could to the 1981 level. It is true that research is essential to outyear productivity. On the other hand, as someone said recently, our wants exceed our ability to pay for it so we have to make some judgments.

Mr. DICKS. You have to make cuts everywhere.

Mr. PETERSON. Yes.

TREE CLONING

Mr. DICKS. Are you familiar with the work that is being done by Weyerhaeuser on the cloning of trees?

Mr. PETERSON. Yes. Dr. Buckman is more familiar with that than I am. I was at the Weyerhaeuser facility and saw some of the work they did.

Mr. DICKS. I would like to have Dr. Buckman come up.

I am interested in getting your view on what they are doing at Weyerhaeuser and what application it might have eventually for the Forest Service. If you could get a tree that was genetically superior, that grows faster and bigger and stronger, that that might have some very significant application for the Forest Service and I would like to hear from you about that.

Mr. BUCKMAN. Yes, Mr. Chairman. The Weyerhaeuser Company does have a very vigorous and aggressive program on tree improvement but so does the Forest Service and so do a number of other forest industries. In fact, the National Forest systems have an equally vigorous but not quite so visible program.

Mr. DICKS. Can you tell us what you are doing with your program?

Mr. BUCKMAN. We are selecting superior trees, testing seedlings from these trees in research nurseries and doing some additional selection based on nursery growth. We next identify those young trees in our research nursery which make the very best parents. Then we use those as the next seed source for trees that go in our large production nurseries. Mr. Chairman, a tree improvement program tends to be very site specific. The Weyerhaeuser Company must select superior trees that are common to their land ownership. The Forest Service must select superior trees that are capable of growing on their forest land. We have a great opportunity to exchange information on techniques, but we have to develop the tree improvement programs for the specific kinds of lands that we are managing.

Mr. DICKS. The work that they are doing in terms of cloning—is that the right phrase?

Mr. BUCKMAN. Yes, it is.

Mr. DICKS. You say the techniques they use may be exportable.

Mr. BUCKMAN. The techniques are exportable to others.

Mr. DICKS. But in fact finding the right trees has to be done in a more site specific way?

Mr. BUCKMAN. Yes, it must.

Now the work on cloning that Weyerhaeuser is doing is very useful indeed. They are trying to grow whole trees out of very small clusters of cells. If they can achieve a breakthrough, others will adopt those techniques.

Mr. DICKS. What would be the breakthrough?

Mr. BUCKMAN. To grow large numbers of trees from single cells or from clusters of relatively few cells.

Mr. DICKS. Is that what we cannot do today?

Mr. BUCKMAN. That is what we cannot do today. We have been able to do it in agriculture for certain kinds of crops but not yet for trees.

Mr. DICKS. Why does having just a few cells, that make it less difficult?

Mr. BUCKMAN. Because if we can grow a tree from just a few cells, we can subdivide a small amount of tissue and grow thousands or even millions of trees. The difficulty, as I understand it, is that there are growth regulators that are specific to each species of plants that we deal with.

Mr. PETERSON. Let me point out, Mr. Chairman, there are some problems that we can run into. For example, in the South where work was done on genetic improvement of southern pine, we put a lot of fast-growing trees in seed orchards. Then we found out that these fast-growing trees were more susceptible to rust than the ordinary tree. We then had to set up a screening system to screen those super trees to be sure that we were not selecting a tree that grew fast but was very susceptible to some disease. You have to go through a very rigorous testing program to be sure that you do not work your way into a corner, ending with a tree that is growing very fast but is highly susceptible to a particular disease.

Mr. BUCKMAN. Perhaps I can elaborate on that point. Cloning means that each of the progeny have exactly the same genetic makeup as the parent organism. I think everyone who works in this field is very much concerned about monotypic stands where the genetic makeup is identical in every single tree. It makes the forest extremely vulnerable to diseases or mutations of those disease organisms or insects. Weyerhaeuser also is very much aware of that danger and in my conversations with them they have indicated that they want to have at least 12 families per acre, at least 12 different sets of clones per acre.

Mr. DICKS. Twelve super trees per acre?

Mr. BUCKMAN. No, 12 different sets of genetic stock per acre.

Mr. DICKS. Twelve different types?

Mr. BUCKMAN. Yes.

Mr. DICKS. Will the cutbacks in this budget hamper these kinds of efforts at the Forest Service?

Mr. BUCKMAN. It will stretch out our work, yes, Mr. Chairman.

Mr. DICKS. What is the time frame? You say "stretch out." When will you have some significant results?

Mr. BUCKMAN. In tree improvement programs?

Mr. DICKS. Yes.

CURRENT TREE IMPROVEMENT PROGRAMS

Mr. BUCKMAN. We already have significant genetic improvements in trees.

Mr. DICKS. Are we implementing those improvements through our nursery operation?

Mr. BUCKMAN. Yes, we are.

We have a vigorous tree improvement program in the Pacific Northwest. We need to do more fundamental work on tissue culture, on recombitant DNA; that is, inserting new germ plasm into a cell. We have not been able to mount this research yet but we plan to do so.

Mr. DICKS. Is that because of a shortage of funds or a shortage of people?

Mr. BUCKMAN. We have not been able to mobilize the funds.

Mr. DICKS. You could do it. What would it cost?

Mr. BUCKMAN. I would have to supply that.

Mr. DICKS. Would you supply for the record what that program would entail?

Mr. BUCKMAN. Yes.

[The information follows:]

FISCAL YEAR 1981 AND PROJECTED FISCAL YEAR 1985 RPA TREE IMPROVEMENT AND GENETICS RESEARCH PROGRAM

Subject area	Fiscal year 1981			Fical year 1985 RPA program		
	Scientist years	Funding level ($1000)	Number of species studied	Scientist years	Funding level ($1000)	Number of species studied
SOFT WOODS						
Genetic variability	19	1,985	20	28	2,900	20
Tree breeding	18	1,390	20	22	2,600	30
Tissue culture and recombinant DNA				3	350	3
Subtotal	37	3,375	(1)	53	5,850	(1)
HARDWOODS						
Genetic variability	3	485	9	15	1,500	20
Tree breeding	4	330	10	14	1,590	20
Tissue culture and recombinant DNA				2	225	3
Subtotal	7	815	(1)	31	3,315	(1)

[1] Column not additive because of species duplication.

Mr. BUCKMAN. Perhaps I could make two additional points. One is that the Resources Planning Act Program, 1980 to 1985, envisioned a strengthening of research programs; in fact, there was more strengthening of research programs in that five-year period than any other Forest Service activity. We are pleased that in this austere budget year we are at least able to maintain our program at the level of the previous years. In times like these, that is significant. We also understand that Secretary Block is very supportive of agricultural research programs. We propose to discuss these new research possibilities with Secretary Block as soon as we are able and perhaps next year we can come back with a more typical budget request.

REDUCTIONS IN HUMAN RESOURCE PROGRAMS

Mr. DICKS. I understand that when human resource programs are factored, in such as the Youth Conservation Corps and the YACC, the Forest Service actually experiences a budget cut substantially above the $60 million on paper. Could you describe for the subcommittee how proposed reductions in the Youth Conservation Corps and the Young Adult Conservation Corps program will affect your budget and your work?

Mr. PETERSON. There is a reduction of $21 million in YCC. This is the total change: $21 million reduction in YCC, $42 million in Young Adult Conservation Corps, $74 million, we think, in Land and Water Conservation Fund, $9 million in other programs like the forestry incentives program and so forth. That is a total reduction of $146 million in allocated funds. Then there was a $60 million specific program reduction and then $14 million that was spread across all programs due to the savings in travel and personnel. About $220 million all together, or about 10 percent of our total budget.

Now we can provide you with the expected accomplishment for each one of those programs. They are in the briefing book. Generally speaking, we show the reforestation, how much they were planning to do. We could summarize that on one sheet of paper.

[The information follows:]

Expected Outputs of YCC and YACC Programs

Based on fiscal year 1980, the expected accomplishments from Youth Conservation Corps and the Young Adult Conservation Corps enrollees would be as follows for a similar level of program:

Activity	Unit of measure	YCC	YACC
Reforestation	Acres	1,680	[1] 28,100
Timber stand improvement	Acres	3,830	[1] 3,740
Fish and wildlife habitat improvement	Acres	35,370	191,600
Range management	Acres	101,610	168,160
Fuel management	Miles	245	478
Trail maintenance and construction	Miles	2,160	6,020
Recreation management	Thousand PAOT [2] days	1,015	7,215

[1] Anticipated outputs for reforestation and stand improvement from YACC in 1982 were offset by increases in regular Forest Service programs.

[2] Persons at one timne.

Mr. Dicks. What is going to happen if we don't have the Youth Conservation Corps?

Mr. Peterson. We will simply do less work in some activities. I mentioned yesterday we will probably do about 1,600 acres of reforestation. We will try to pick areas where the effect would be the least if we can, but one of the features of human resource programs is that they have been highly oriented to the East so the impact will be greater in the East.

Mr. AuCoin. Is that because one of the activities that will be impacted the greatest is recreation? Is that one of the reasons?

Mr. Peterson. Yes. Recreation, trail construction, reforestation, timber stand improvement, the kinds of things that are labor intensive. Just to give you a quick example, we expect to do about 5,500 acres less of reforestation and timber stand improvement and about 35,000 acres less of fish and wildlife habitat improvement, maybe as much as 100,000 acres of range work of different kinds, 2,150 miles of trail maintenance and construction. That was one of the major activities.

Mr. AuCoin. Recreation trails?

Mr. Peterson. Primarily recreation trails.

The YCC and YACC were heavily used in recreation areas so we may have to reduce the amount of recreation we served by as much as a million or more recreation visitors, or we may have to provide less service. We have both of those possiblities.

Mr. AuCoin. That is in addition to a reduction in recreation, Mr. Chairman.

There is a reduction of nearly $8 million in the revised budget, is that correct?

Mr. Peterson. That is right.

Mr. AuCoin. If I could just stay on this for a second, Mr. Chairman.

Mr. Dicks. Go right ahead.

RECREATION VISITOR DAY USE

Mr. AuCoin. Just for recreation alone when you calculate the impact of the YCC funding loss with this $8 million figure and compare that with the growth in visitor day use—by the way, what is that? What has it been over the last five years?

Mr. Peterson. We have run over 200 million visitor days per year. The projected recreation use in 1981 is 233 million. It was actually 222 million visitor days in 1980.

Mr. AuCoin. Has it been going up steadily?

Mr. Peterson. Yes. Some of our forests that are close to population centers have picked up out of proportion to the general increase because people are staying closer to home. Mount Hood next to Portland and the forest out of Seattle are picking up a lot of visitation from southern California and the West. Where people used to take a cross country trip, they can no longer afford that so they will go and spend a week or so in a national forest.

Mr. AuCoin. Would you state for the committee what the rate of growth has been on visitor day use for the last five years?

Mr. Peterson. I can give you the numbers back to 1978. In 1978 it was 218,500, roughly; 220 million in 1979; 222 million in 1980; and we expect about 226 million in 1981. That is our best estimate.

Mr. AuCoin. Do you have the information on the increase in visitor day use for the Mount Hood Forest and two other forests near an urban center, the George Washington Forest in Virginia and the Shenandoah?

Mr. Peterson. We don't have that information with us but we can provide it.

Mr. AuCoin. Would you provide that for the record?

Mr. Peterson. Yes.

[The information follows:]

RECREATION VISITOR DAY USE, MOUNT HOOD AND GEORGE WASHINGTON NATIONAL FORESTS

	1975	1976	1977	1978	1979	1980
Mount Hood National Forest	3435	3364	2911	3244	4170	3840
George Washington National Forest	1914	1973	1916	1842	1793	1792

The impacts of Young Adult Conservation Corps (YACC) and Youth Conservation Corps (YCC) on the Mount Hood National Forest is significant. In fiscal year 1980, 60 percent of the trail construction was completed with YACC and YCC participants. Fifty percent of the trail reconstruction targets were accomplished with YACC and YCC enrollees. A similar situation exists on the George Washington National Forest.

More than 91 percent of the trail maintenance was completed using YACC and YCC participants. Approximately 10 percent of recreation capacity, both full service and reduced service was maintained with YACC and YCC enrollees.

Mr. AuCoin. When you take that visitor day growth and compare it to the funding loss for YCC and the impact that will have on the recreation side plus the nearly $8 million, it is a $7.7 million reduction in the Reagan budget for recreation. What is that going to mean in terms of services provided? You made some allusion in your statement to a reduction in the season that some of these areas would be working. Can you be more specific as to what this might mean?

Mr. PETERSON. All right. We will try to make these changes with the least disruption of visitors' activities. For example, if we have two campgrounds we might keep both of them open, but close one of them earlier in order to reduce our cost.

Mr. DICKS. Will my colleague yield?

Mr. AUCOIN. Certainly.

PERSONNEL CEILING PROBLEMS

Mr. DICKS. One of the problems we have had with the Forest Service, like any other Government agency, is the personnel ceiling.

Mr. PETERSON. Yes.

Mr. DICKS. You are cutting out the Youth Conservation Corps and the Young Adult Conservation Corps. Are you going to have personnel to pick up the slack? You are reducing permanent positions by 129.

Mr. PETERSON. What we will have to do is shift some people.

Mr. DICKS. How many people are involved? How many people working out of YACC and Youth Conservation Corps are working for the Forest Service on Forest Service activities?

Mr. PETERSON. There are about 15,700 in 1981 in the Young Adult Conservation Corps, 7,800 in Job Corps, 4,350 in Senior Conservation Employment Program, these are senior citizens, and about 16,000 in volunteer programs, and about 5,000 in various hosted programs where we provide the work and somebody else provides the people. When you add all these together, that is considerably more than our regular force. In some forests it is not unusual for most of their work force to be made up of program people.

Mr. DICKS. Is the bottom line then that we are going to have a real problem if we don't have those people out there helping us to get the job done?

LESS ACTIVITY ACCOMPLISHMENT

Mr. PETERSON. We will simply reduce some of these activities, as I mentioned. We will do less trail maintenance, we will do less of other activities. The impact on recreation is the more difficult one. We will probably have to go to the user maybe to pack the garbage out.

Mr. AUCOIN. User fees?

Mr. PETERSON. We already have user fees. We are not increasing the user fees.

We may have to ask people to police themselves more by taking their garbage out. We will probably pick up garbage less frequently and do other things less frequently.

Mr. AUCOIN. Does that mean that that is going to be done or is that just going to be a litter problem in those areas?

Mr. PETERSON. It will be a mixed bag. In some places it seems to work pretty well but in some places it may work for a week or two and then not work. It is very specific to the people involved.

POSITIVE ASPECTS OF YCC AND YACC

Mr. DICKS. Have the Youth Conservation Corps and the Young Adult Conservation Corps been good programs or bad programs? You watched them operate over the last few years. Have they been positive or have they not been positive?

Mr. PETERSON. I think they have been positive. Let me give you a pro and con though on the Youth Conservation Corps. The Youth Conservation Corps, which is a summertime program, have done a lot of excellent work. It has an educational element as well as a work element but it is not targeted towards unemployed or disadvantaged.

PERCENTAGE OF DISADVANTAGED IN YCC

Mr. DICKS. Are you saying it is one of those very few programs that everybody in this country can qualify for, and that the broad middle class can qualify for, and that somebody who happens to be born of a rich parent can qualify for, and that it does not discriminate against anybody? With all the programs we have that are targeted at the poor and the unemployed, there ought to be one program that everyone can qualify for. Is that so terrible?

Mr. PETERSON. We that have been associated with it always think there are some values to a middle class or upper income person being associated with some disadvantaged but it has been criticized for not being targeted. I should point out that that was moved to the Department of the Interior's budget last year.

I would say if your objective is to target on disadvantaged or unemployed, then the Youth Conservation Corps does not do that. If it is your objective to get work done and some educational work done, too, and make it available to a broad range of people, then it does do that. It depends on what objectives you are trying to accomplish.

Mr. DICKS. We have the Job Corps and we have all these programs—at least we used to—that were targeted at the unemployed and the poor. Is Mr. Anderson here? I remember the testimony of last year that the record is pretty good here, that even though it is not targeted at the poor about 32 percent or 35 percent——

Mr. ANDERSON. Are disadvantaged and from low income families.

Mr. DICKS. So what has happened here, even though we have not targeted, the result has been pretty substantial, hasn't it?

Mr. ANDERSON. Yes, it has. The criticism, as the Chief has said, has been that it is not specifically targeted, especially as far as urban America is concerned and to specific groups.

Mr. DICKS. Last year you testified to Mr. Yates, "Mr. Chairman, currently the Forest Service portion of the Youth Conservation Corps program, 21 percent of the enrollees come from urban America."

Mr. ANDERSON. Right.

Mr. DICKS. Well, that is not insignificant.

Mr. ANDERSON. That is correct.

Mr. PETERSON. In fiscal year 1980, about 27 percent of the YCC enrollees came from a family that had an income of below $10,000.

Mr. DICKS. How many?

Mr. ANDERSON. Twenty-seven percent below $10,000.

Mr. DICKS. Is that pretty reflective of our society?

Mr. PETERSON. I think in fact that may be a little higher.

YCC PROGRAM IN FOREST SERVICE

Mr. DICKS. In the justification it says, and I am talking about the rescissions now—by the way, the rescission leaves $21,106,000 for fiscal year 1981. How much of that will the Forest Service get?

Mr. PETERSON. Basically that is to cover obligations already incurred with grants to States and so on. We do not expect to operate a program at all in 1981.

Mr. DICKS. In 1982?

Mr. PETERSON. No, 1981.

Mr. ANDERSON. Yes, Mr. Chairman. The rescission leaves no Federal program for either the Department of the Interior or the Forest Service. There will be a State program.

Mr. DICKS. A State program?

Mr. ANDERSON. Eleven million dollars for 30 States. Those States where the grants were approved prior to the date of the rescission. That includes about 30 of the States which will participate in the program this year for a total of about $11 million.

Mr. DICKS. That is all that the Forest Service will get out of it.

Mr. ANDERSON. The Forest Service will not get any. We have to manage the grants and that is about the level of our participation. So you have about 20 States and five territories that will not have the program this year and I think your State is one of those States, the gentleman from Oregon.

Mr. DICKS. That will not be included?

Mr. ANDERSON. I think so.

Mr. DICKS. The justification says, "The program is proposed for elimination because it is one of the most costly and least targeted Federal youth programs and the work accomplished by enrollees is low priority."

Do you agree with that statement?

Mr. PETERSON. That is a general statement made about YCC. We have in our own instructions asked the field to do work that is within the long term RPA priorities; in other words, do priority work. In some cases—in some cases—there may simply not be manpower intensive work that is high priority but in most cases we have tried to target our high priority work.

Mr. DICKS. I think this committee has believed over the years that this is a very important program. It is something that young people I know all over our area in the Northwest think very highly of and it just seems to me that it is getting youth to understand what goes on in the Forest Service and our National Parks and recreation areas. It is important and it is hard to believe that we cannot figure out some way to preserve this program at some level in fiscal year 1982.

Do you have any further questions?

ACCOUNTABILITY OF 1981 YCC BUDGET

Mr. AUCOIN. I have one question, Mr. Chairman.

You indicated about $11 million would be distributed to 30 States.

Mr. Leisz. That is correct.

Mr. AuCoin. But the budget calls for $21.8 million. Who gets the difference?

Mr. Anderson. The reason for the $21.8 million is that there were costs that were being incurred prior to the rescission by States and by the Federal Government. The printing of applications, for example, had to be taken care of and we had people on board and there are other costs that are being incurred at the present time.

Mr. AuCoin. Administrative costs?

Mr. Anderson. Right, administrative costs and State spending on good faith because these funds, remember, were already appropriated so they were operating on the fact that they were going to have a program this coming summer, all of them, not just those 30 that got their grants approved. They have incurred costs so that is why you have $21 million listed there. The $11 million is for those States that had their grants approved prior to that rescission date.

Mr. AuCoin. The difference then goes to administrative costs for the Federal Government and administrative costs——

Mr. Anderson. For the States and other kinds of program materials and supplies that are on hand. Running the computer, for example. You see, the selection process was in progress at that time so you are running the computers and any number of various kinds of costs were being incurred.

Mr. AuCoin. That difference is almost equal to the amount that you are giving to the 30 States. Did that seem unusual?

Mr. Anderson. I missed that one.

Mr. AuCoin. We are talking about nearly $11 million as I look at it for administrative costs.

Mr. Anderson. No, you have closure costs also included. You have closure costs in the States disposing of the property that you have on hand. You have to dispose of property inventory.

Mr. AuCoin. How much would the closure costs be for the disposal of property?

Mr. Anderson. I cannot answer that. I don't have any answer prepared.

Mr. Peterson. There is $10 million involved in all those kinds of costs, closure costs. The money that has already been spent by the Federal agencies and by all 50 States today and that is just the best estimate. The program has to be kept in readiness, too, until Congress acts on the rescission.

LATEST CUTOFF DATE FOR YCC REINSTATEMENT

Mr. AuCoin. How long can the 1981 program continue if the rescission is rejected?

Mr. Anderson. We have a date of something about June 15. If I understood your question, we would need to have the signal to go by June 15 or thereabouts in order to get the program operating for the summer because you have to crank up the selection system, get the notifications to the enrollees and then, with the situation like that you are going to have an awful lot of no-shows, so it is going to take an awful lot of work spinning it out. So June 15 is cutting it pretty close.

Mr. AuCoin. Thank you.

VALUE OF WORK RETURNED

Mr. **Dicks**. I want to ask if these figures are accurate. I was told last year the value of work returned on each dollar expended was $1.29. Agriculture was $1.15 and the State grant program was $1.57. Are those figures accurate?

Mr. **Anderson**. Those figures are accurate for the fiscal year 1979 program.

PARTICIPATION LEVELS IN YCC

Mr. **Dicks**. I am also told that participation, and this goes to Interior. I will read them in order. Interior, Agriculture and State grants with minority was 30 percent in the Interior program, 19 percent in the Agriculture program, 25 percent in the State program. Female was 48 percent in Interior, 48 percent in Agriculture, 46 percent in the State program.

Then it goes to economically disadvantaged under $10,000: 22 percent Interior, 30 percent Agriculture, 35 percent State grant. Under $15,000: 63 percent Interior, 60 percent Agriculture and 48 percent State grant.

Are those accurate?

Mr. **Anderson**. They are accurate.

Mr. **Peterson**. The fiscal 1980 figures would indicate 20 percent minority for our portion of it. It is up somewhat.

Mr. **Dicks**. This must be 1979.

Mr. Anderson, do you have a comment?

Mr. **Anderson**. No.

Mr. **Dicks**. I am sure this is not you, of course, Mr. Peterson. I understand the realities of this as OMB and it just seems to me that these figures contradicted the alleged comments made and the comments that have been made in the justification. It does not seem to be consistent to me.

Mr. **Peterson**. I think the nontargeted statement, as you point out, is consistent.

Mr. **Dicks**. It is nontargeted by statute but the result is that the bottom line is that a lot of these people come from "economically disadvantaged" homes. The bottom line is that even though we have not required it by statute that is what has happened.

Mr. **Peterson**. I think that is correct. It does serve a substantial number of disadvantaged and low income even though it is not specifically required.

Mr. **Dicks**. This Administration supposedly is concerned about taking care of the problems of the broad middle class of this country. It is saying that we have done too much to target special programs for the poor and disadvantaged and it is now using that rationale to criticize a program that is to help the broad middle class of this country. That is what seems to me to be slightly ironic about the budget justification statements. That is my statement. I don't expect you to comment.

The case here is not very weak. The case is really that we are going to cut something and this is the one to be cut. That is the way to express it rather than to try to justify the cut on the grounds that it is not supportable by the facts.

Do you have anything else?

Mr. AuCoin. No.

Mr. Dicks. Why don't we recess until one thirty.

Mr. AuCoin. Let me ask one more question.

Mr. Dicks. Go ahead.

CAPABILITY OF REIMPLEMENTING YCC PROGRAM

Mr. AuCoin. I just want to come back to the YCC program for one last matter. You mentioned that you would have to have a green light or a red light by the middle of June in order to do all the preliminary work and develop the kids and fill the no-shows and all the rest. If you had to wait until, the first of July before you knew whether the light was green or red from the Congress, could you at that time still have a program that was shorter in duration, maybe four weeks instead of six or eight, and a larger number of kids?

Mr. Anderson. We could run a four week program. We run some of those now and have been running some of those in our regions. That would be a possiblity or maybe a five week program. As far as doing it with more kids, that would be rather difficult because of the limited amount of facilities. We would also have to get people on and train them to actually activate the program.

Mr. AuCoin. But you could wait until around the first of July or somewhere thereabouts, and go forward with a program of a shorter duration leaving aside the question of additional kids. You could run a program and go with it as of July if the time were shorter could you not?

Mr. Peterson. I think we could. I think the problem that we are dealing with is that we need to set our work program for the summer pretty quick, including where we are going with our people. If we are in kind of suspended animation until the first of July, then there would be considerable inefficiency in trying to crank it up at that point. We would have to reassign our people to supervise them, we would have to provide a certain amount of training to get started. When you get down to four weeks you are probably getting to a point of fairly marginal value. Again, because it does take a certain amount of training to get youngsters productive. We have equipment needs that will be able to transport people. So I think that it is important that Congress either agree with the rescission or disagree with it as early as possible.

Mr. AuCoin. We understand.

Mr. Dicks. We are going to do it next week.

Mr. AuCoin. Mr. Chairman, the problem is what the Senate is going to do and how we reconcile this and how long it will take to reconcile and that is why I am trying to——

Mr. Dicks. Both houses concur on the rescission.

Mr. Peterson. The other part of this problem is that by that time probably a high percentage of the youngsters would already have made plans for the summer.

Mr. Dicks. With youth unemployment at 20 percent I am sure many do not have plans for the summer.

Mr. Peterson. I still think we could do it.

Mr. AuCoin. It could still be effective.

Mr. Peterson. Yes, it could still be effective probably.

Mr. Dicks. We will adjourn now until one thirty.

AFTERNOON SESSION

Mr. AuCoin. As I recall, we solved the problem of the YCC when we adjourned so having taken care of that problem we will move ahead.

I want to continue my line of questions on State and private forestry.

VIRUS PRODUCTION FACILITIES

Under Special Projects you note that you initiated your own virus production facility in Corvallis, Oregon—which happens to be in a congressional district I am somewhat familiar with—because attempts to contract with private contractors for virus production had failed. I would like you to tell the committee why they failed. How much did establishing this facility cost and would contracting have been cheaper?

Mr. Peterson. Let me give you a preliminary answer and then Mr. Roget can add to it. Basically this is a very specialized virus used only for forestry purposes, and we are not at all sure how much of it is going to be used. It was important to minimize the risk capital because of the uncertainty of the need due to unpredictability of insect population levels. We felt that by far the most economical way to produce a virus was to do it at this level in a facility of our own. In addition, there is little or no technical capability outside the Forest Service to produce this virus. As the need to use the virus increases then it quite likely could be something that we could get done commercially. But at least for the foreseeable future we don't see it being produced commercially.

COMMERCIAL PRODUCTION OF VIRUS

Mr. Roget. After the Douglas fir tussock moth virus was developed we tried for about a year and a half or two years to interest a commercial firm in doing it. We would have much preferred to have had someone outside the Forest Service do it. It is a very tedious, very timely, highly technical and difficult thing to do. The total cost to produce enough virus for about 50,000 acres is about $705,000. Our objective is to produce enough so that we have in storage a backlog of enough virus to control about 50,000 acres. Commercial production is our preferred way of doing it.

Mr. AuCoin. Is this a physical facility as well as an operational program?

Mr. Roget. No, it is a production program. We are doing it at Corvallis at the Pacific Northwest Station laboratory.

Mr. AuCoin. No capital costs of any kind?

Mr. Roget. No substantial capital costs. Dr. Buckman is our expert on the whole process if you want to know more about it.

Mr. AuCoin. I don't think we need to get into all the details of the process but only to try to determine why there was a failure and how much the cost was and if the cost would have been cheaper if you had contracted it out.

You mentioned risk capital. If you have a Federal contract for this purpose, does that not provide a guaranteed return for the private sector contractor to conduct this?

Mr. Peterson. No. What I had in mind was relying on the private sector for doing the whole thing and only buying if needed. That would be the other way to go.

Mr. AuCoin. Why couldn't you contract with a commercial firm?

Mr. Peterson. In essence we are using the facilities at Corvallis, Oregon, where they did the earlier work on the tussock moth virus. We are talking about highly technical knowhow. We need to know that this works because we are still in the early stages of producing it.

Mr. AuCoin. Could you have contracted with Oregon State University and saved some money?

Mr. Roget. We thought of that and we talked with Oregon State University about doing it. We discussed this with them but it was decided that it would be better, since we could not turn it over to a commercial firm to do it at least for the first batch. Three of the employees that we have working on the procedure are former Oregon State University people now on our staff at Corvallis.

Mr. Peterson. In essence we are using the expertise and the facility that was there with our people through a cooperative type effort. That is what it amounts to.

Mr. Roget. We would like very much to get out of this kind of business as soon as we can, but we just didn't dare not get started with it. If we had a tussock moth outbreak and we didn't have a supply of the virus, we would really be in bad shape.

Mr. AuCoin. You plan to produce enough tussock moth virus at this facility to cure 50,000 acres over a three-year period or two-year period?

Mr. Roget. Produce it over a three-year period.

Mr. AuCoin. That can't be the total amount of acreage needing treatment.

Mr. Roget. It would depend on what the size of the future outbreak was, but we thought we should at least at first have enough on hand and in storage so that we could treat up to 50,000 acres. If we had an outbreak then we will have to look at it again as we get indications of what might happen.

Mr. AuCoin. What is the total amount of acreage that does need treatment right now?

Mr. Roget. Right now we are not having any major problems with the tussock moth so what we are trying to do is just have it in storage should we get a buildup. The virus takes so long to produce and we thought we should have some available.

Mr. AuCoin. What other items have you produced?

Mr. Peterson. We did use this virus several years ago for a major testing project. The virus stays there, so we are looking for a place where the virus did not sustain itself and we will go to that spot. Fifty thousand acres would allow us to get started. If we need more we will again try to contract it.

Mr. AuCoin. Was that five or six years ago?

Mr. Peterson. In the early 1970s.

GYPSY MOTH VIRUS PRODUCTION

Mr. AuCoin. What other viruses do you plan to produce?

Mr. Buckman. We have another virus registered for gypsy moth but that has not yet moved into production. This one is the second such registered virus for a forest pest. We have two or three others on the horizon. Viruses are extremely effective insecticides because they are specific to the pest itself and to nothing else.

PESTICIDE STORAGE FACILITIES

Mr. AuCoin. The increase of $498,000 would provide five additional pesticide storage facilities. What do these facilities cost and how much do you have in total?

Mr. Roget. I cannot give you that at this time. I will supply it.

[The information follows:]

Pesticide Storage Facilities

Only part of the $498,000 increase would be used to build new or improve existing pesticide storage facilities. Pesticide storage facilities that we have recently constructed to comply with regulations provided under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, have cost between $8,000 to $50,000. Building costs have been shared among several Forest Service functions. The cost range depends upon the size of the facility and whether or not it is a building designed to store pesticides year-round or only temporarily while a project is ongoing. Forest Insect and Disease Management has $100,000 in the 1982 budget for pesticide storage facilities based on estimated costs of $20,000 per facility.

Mr. AuCoin. You will also implement 12 special pesticide projects. Have you told the committee what these involve?

Mr. Roget. Can we furnish that?

Mr. AuCoin. Yes.

[The information follows:]

Pesticide Projects

The 12 special pesticide projects will fill data gaps on exposure, environmental impact and fate, effectiveness, and economic benefits of pesticides in EPA's Rebuttable Presumption Against Registration (RPAR) process. Data gaps are identified by assessment teams that are set up under USDA's National Agricultural Pesticide Impact Assessment Program (NAPIAP) to evaluate the uses, benefits, and economics of RPARed pesticides. The average cost of NAPIAP funded projects for fiscal year 1981 was $39,700 per study with a range of $17,250 to $88,400. Studies involving exposure or environment fate of the pesticide are the most expensive because of the high costs of the chemical analysis involved in these studies. These projects are actually performed by various research units and universities. They are funded on the basis of project proposals. Many of the proposals for 1982 funding have not yet been submitted so it is too early to precisely identify the projects. Examples of ongoing projects include:

Use of chemical modifications to inhibit the vaporization of Pentachlorophenol from treated wood;

Movement, persistence, and fate of glyphosate in an eastern hardwood-conifer forest;

Effects of 2,4-D and an alternative material (glyphosate) used for brushfield rehabilitation on soil arthropods; and

Possible persistence and biomagnification of 2,4-D (Texas forests).

RURAL FIRE PROTECTION AND CONTROL

Mr. AuCoin. Your request for rural fire prevention and control is $14,930,000. That is a decrease of $6 million from the 1982 base. The reduction will shift the financial responsibility of providing fire protection on non-Federal lands almost entirely to the states. Have you any information as to the amount of reduction that will be made up by the states?

Mr. Peterson. It is not really possible to determine that at this point. We know that some States are looking at picking up the fire part at the expense of some other activities, for example, because of the importance of fire. It is probable several States will pick up the reduction in fire.

Mr. AuCoin. What other activities might they neglect?

Mr. Peterson. Assistance to private landowners and reforestation. They will consider fire more vital so they will concentrate on that, at least initially. Then they may shift back to some of the other activities when they get more money.

Mr. AuCoin. How much of the reduction for fire prevention will be made up of the states? What kind of indication do you have? Was this arrived at without that calculation?

Mr. Peterson. This is the same basic amount requested last year in the budget. Congress increased that amount. This goes back to what was recommended last year.

Let me point out that the best we can find out from the states is that about 21 states will continue about the same level of program they have now so they will make an internal adjustment for all or part of that fire fighting.

There are 10 states which are making some major reductions in the forestry program because of major problems within the state; for example Maine, Michigan, Idaho, South Dakota and West Virginia. Several states are also making cuts in their own forestry program.

Mr. AuCoin. Will they not be able to absorb the difference?

Mr. Peterson. If they do it they will do it by essentially just wiping out their non-fire-related activities for a time until they can come back.

I know that is not a very definitive answer but each State will have to make its own judgment on priorities.

Mr. AuCoin. Do you know at this point what they will do?

Mr. Peterson. No.

Mr. AuCoin. Can you provide for the record the amount provided by each state for fire prevention in 1980 and 1981?

Mr. Peterson. Yes, sir.

Mr. Roget. We can now for 1980. 1981 is the current fiscal year. We might have a little trouble getting the current figure for 1981.

Mr. AuCoin. Let's have it for 1980 and 1981 if you can.

Mr. Roget. And 1979?

Mr. AuCoin. Very well.

[The information follows:]

RURAL FIRE PREVENTION AND CONTROL EXPENDITURES

The Federal, State and total Rural Fire Prevention and Control expenditures for each state are shown in the table below. Only the 1979 and 1980 data are provided because 1981 data are not available. For comparative purposes, the figures are shown in constant 1979 dollars.

State and Federal Rural Fire Prevention and Control Expenditures (in real 1979 dollars)

State	FY 1979 Federal $ (1000)	FY 1979 State $ (1000)	FY 1979 Total** $ (1000)	FY 1980 Federal $ (1000)	FY 1980 State $ (1000)	FY 1980 Total** $ (1000)
Idaho	553	1,508	2,060	379	1,394	1,772
Montana	616	2,133	2,749	402	2,627	3,029
North Dakota	170	268	437	110	279	389
REGION 1	1,339	3,908	5,247	891	4,300	5,190
Colorado	744	1,998	2,742	467	1,850	2,337
Kansas *	423	1,583	2,006	276	1,374	1,650
Nebraska	405	431	835	265	265	531
South Dakota	575	801	1,376	375	930	1,304
Wyoming *	353	1,024	1,378	251	457	687
REGION 2	2,500	5,837	8,337	1,634	4,876	6,510
Arizona	180	239	419	117	334	450
New Mexico	360	365	726	236	373	609
REGION 3	540	604	1,144	353	706	1,059
Nevada	330	1,220	1,550	222	1,229	1,450
Utah	300	834	1,134	207	963	1,170
REGION 4	630	2,054	2,684	429	2,191	2,620
California	2,043	63,508	65,551	1,334	69,298	70,633
Guam	47	37	84	41	41	82
Hawaii *	189	355	544	69	275	344
REGION 5	2,279	63,901	66,180	1,444	69,614	71,058
Oregon	832	4,304	5,135	547	8,070	8,617
Washington	837	8,405	9,242	546	9,880	10,428
REGION 6	1,669	12,709	14,378	1,093	17,950	19,044
Alabama	757	4,703	5,459	495	3,231	3,726
Arkansas	676	3,717	4,393	440	4,312	4,758
Florida	919	13,265	14,184	612	14,412	15,024
Georgia	872	11,201	12,073	572	9,782	10,354
Kentucky	605	2,827	3,432	400	3,046	3,441
Louisiana	765	6,678	7,444	500	5,374	5,873
Mississippi	781	4,749	5,530	510	4,519	5,029
North Carolina	829	7,531	8,360	541	6,744	7,285
Oklahoma	414	1,279	1,693	271	1,314	1,585
South Carolina	789	5,572	6,361	516	5,005	5,520
Tennessee	708	4,041	4,749	463	4,198	4,660
Texas	651	2,015	2,667	426	3,059	3,484
Virginia	793	3,032	3,825	518	2,226	2,744
SA-S&PF	9,558	70,610	80,168	6,264	67,221	73,484

State and Federal Rural Fire Prevention and Control Expenditures (in real 1979 dollars)

State	FY 1979 Federal $ (1000)	FY 1979 State $ (1000)	FY 1979 Total** $ (1000)	FY 1980 Federal $ (1000)	FY 1980 State $ (1000)	FY 1980 Total** $ (1000)
(Continued)						
Connecticut	144	103	247	94	273	366
Delaware	71	97	168	46	159	205
Illinois	287	121	408	186	186	372
Indiana	185	204	389	121	309	430
Iowa *	150	93	243	98	139	237
Maine *	632	2,927	3,559	413	2,818	3,231
Maryland	404	795	1,199	368	725	1,093
Massachusetts	394	1,155	1,550	257	1,251	1,509
Michigan	770	1,659	2,429	609	1,051	1,660
Minnesota *	582	2,014	2,597	380	547	927
Missouri	724	1,655	2,379	472	2,030	2,502
New Hampshire	281	451	732	184	482	666
New Jersey	504	788	1,292	330	1,799	2,129
New York	716	1,585	2,301	467	1,515	1,982
Ohio	427	632	1,058	280	916	1,196
Pennsylvania	792	4,282	5,074	518	4,361	4,878
Rhode Island	137	287	424	90	346	437
Vermont	102	97	199	66	89	157
West Virginia *	450	1,085	1,535	293	1,184	1,478
Wisconsin	762	3,524	4,286	498	4,888	5,386
NA-S&PF	8,513	23,556	32,069	5,771	25,068	30,840
Alaska	520	897	1,417	339	1,875	2,214
R-10	520	897	1,417	339	1,875	2,214
Puerto Rico	47	2,553	2,600	43	2,514	2,557
Sub-Total	27,595	186,627	214,222	18,261	196,317	214,576
Administration	2,970	--	2,970	2,370	--	2,370
TOTAL **	30,565	186,627	217,192	20,631	196,317	216,946

* Preliminary
**May not add, due to rounding.

FEDERAL ROLE IN COOPERATIVE FIRE PROTECTION

Mr. AuCoin. This request is about the same as last year's. Congress did not think that was adequate and increased it. Is that a general pattern, that the agency also asks for less in this account?

Mr. Peterson. This is a major question as to the Federal role in certain things. For at least two different administrations now there has been a feeling that this activity is one that the States should increasingly pick up.

Mr. AuCoin. Who are some of the major advocates for the program on the Senate side?

Mr. Peterson. Senator Dole.

Mr. Roget. Senator Pressler, as well.

Mr. Peterson. I think Senator Stennis was.

Mr. AuCoin. This committee agreed with the request, I am told, from the agency last year. It was a Senate amendment which provided the increase.

Mr. Peterson. That is correct.

Mr. AuCoin. Since the Federal Government, through capital gains and the new investment tax credit, gives substantial tax benefits to private owners, and since the costs of managing forest lands, including providing fire protection, are the costs of doing business, why should the Federal Government subsidize this activity at all? What is your response to that?

Mr. Peterson. The amount we requested this year is based on an analysis of what we think the Federal role is, the things that benefit the American public. As an example, you have the primary watershed lands which serve interstate streams where an individual on his own land is not capturing all the benefits of fire protection.

There are also interstate fire crews where if we have a major problem in the West, we may draw on the Southeastern crews as we did in Idaho recently.

Recently we triggered cross-state use of crews in the Southeast. In order to do that, joint training is necessary. Common terminology and common organization as well as a common training level is necessary to allow them to function in this kind of activity. It is efficient and that is the basis for the $14 million request.

Above that the feeling is that the States and private owners should pick up the cost.

PERSONNEL ASSIGNED TO COOPERATIVE FIRE PROTECTION

Mr. AuCoin. Under the object class breakdown, you show the entire amount of the reduction against "grants." Since you are also proposing to cut out nine positions, how much of the reduction is actually grants and how much is personnel and related costs?

Mr. Peterson. We have very few people working in this activity. It is basically just a passing on of the grant to the States. We have only a few specialists who provide assistance across State lines. That is the reason it is shown as a reduction in grants because we will keep those few people involved in specialized assistance.

We have worked this out with the Committee of State Foresters as to how this money is to be spent. The Committee of State Foresters is mandated by law.

Mr. AuCoin. The justification indicated there are nine permanent full-time person years being eliminated.

Mr. Peterson. I think that is a mistake in arithmetic. That was probably application of our normal cost per million against that. That does not really mean we will do that.

Mr. AuCoin. Is that in error?

Mr. Peterson. Yes. We may well drop one or two people after further discussion with State Foresters but we don't anticipate that drop.

RURAL FORESTRY ASSISTANCE

Mr. AuCoin. You are requesting $22,400,000 for rural forestry assistance, an increase of $2.4 million.

Can you explain more clearly the relationship of this program to the Forestry Incentives Program?

Mr. Roget. The rural forestry assistance program is basically the program whereby the Forest Service transfers money to the State forestry agencies. They work with the private landowners in the non-industrial forest land helping them make management decisions and carry out these decisions. The basic objective is to improve productivity of the privately-owned forest lands.

The amount is principally targeted toward timber supply. Some of the money is used for utilization programs which we talked about earlier, and working with the smaller industrial plants, to improve the utilization of the wood supply.

Also we work with the State forestry organizations on the production of nursery stock for trees and also the genetic improvement of trees. We share in the objective to have nearly all of our trees planted using genetically improved stock by 1990.

FORESTRY INCENTIVES PROGRAM

Mr. AuCoin. What is the difference between this and the Forestry Incentives Program?

Mr. Roget. The Forestry Incentives Program is a program whereby the Department of Agriculture shares with the landowner in the cost of reforestation and timber stand improvement practices. The money is appropriated to the Agricultural Stabilization and Conservation Service. They in turn forward 10 percent of the funds to the Forest Service. We turn most of that money over to the State forestry agencies. Ten percent of the funds are used to help provide the technical assistance to the landowner in carrying out the reforestation and timber stand improvement practices.

In other words, we supply to the State forestry agencies the technical assistance funds, the forestry assistance necessary to carry out the Forestry Incentives Program. The funds are appropriated to ASCS. They actually make the payment to the landowners. Landowners make application to the county office and the application is referred to the State Forester whose staff go out and work with the landowner, develop a plan, decides what he is going to do, makes sure that the land meets requirements for the program.

The program is targeted to timber production. The land must be capable of producing at least 50 cubic feet per acre per year.

Mr. AuCoin. That is the Forestry Assistance Program?

Mr. PETERSON. Forestry Incentives Program.

Mr. AUCOIN. Rural Forestry Assistance Program sounds to me as though it is targeted to timber production as well.

Mr. PETERSON. Yes.

Mr. AUCOIN. We have two programs though the funds come in different ways.

Mr. ROGET. In the Rural Forestry Assistance Program we do not make payments to landowners.

Mr. AUCOIN. Payments may go to different people but the objective of both programs is the same, is it not?

Mr. PETERSON. No.

Mr. AUCOIN. Where is the difference?

PROGRAM OBJECTIVES

Mr. PETERSON. The Rural Forestry Assistance Program has no payment to people to plant trees. It is purely technical assistance.

Mr. AUCOIN. That is which program?

Mr. PETERSON. Rural Forestry Assistance Program.

Mr. AUCOIN. Technical assistance?

Mr. PETERSON. Yes. If you want to do something to your land, you go to the State Forester who tells you what you can do with the land. They will sell them trees, but there is no sharing of costs.

Forestry Incentives Program provides some sharing of the cost. That is what the Forestry Incentives Program does. It is targeted to sharing a portion of the cost of the landowner doing the reforestation or stand improvement. This is for timber production.

Mr. AUCOIN. Both for timber production?

Mr. PETERSON. Yes.

Mr. AUCOIN. Both for timber supply?

Mr. PETERSON. Yes.

Mr. AUCOIN. And utilization?

Mr. PETERSON. Take rural forestry assistance first. We will do about four million acres of planting this year for landowners, four million acres. That is considerably more than we plan in the Forestry Incentives Program. A lot of these people do this to take advantage of the Packwood tax incentive or just because they want to do it, they have funds for it.

About $7 million in 1982 will be to get improved utilization of wood through the Sawmill Improvement Program and other utilization programs. In the Sawmill Improvement Program we go to small sawmills and show them ways to improve their operation to get more lumber. That and other utilization programs will expect to yield about 150 million cubic feet of additional lumber and other products, which is about 750 million board feet. That is a very cost effective program.

A couple million dollars of rural forestry assistance will go into helping States establish nurseries so they will have seedlings available to sell at cost to landowners. Then there is another two and a half million dollars going to tree improvement to get genetically improved trees to be planted on private lands.

In all of this the states have to put in at least half of the money. That is in all of these programs. In practice they put from 50 percent up to 90 percent depending on the activity in the state.

This, then, is not just a straight grant. It is a matched activity with states. The Forestry Incentives Program provides sharing of the cost of planting trees or improvement for a few people who qualify for that.

LEVEL OF FORESTRY INCENTIVES PROGRAM

Mr. AuCoin. How much is provided in the Reagan budget for the Forestry Incentives Program?

Mr. Roget. $12.5 million for 1981. For 1982 it is $10 million.

Mr. Peterson. $12.5 million in the current year and $10 million in the 1982 Reagan budget.

Mr. AuCoin. What did the Carter budget provide?

Mr. Roget. The Carter budget for fiscal year 1981 requested $15 million. Congress ended up appropriating $12.5 million for forestry incentives.

Mr. AuCoin. How about 1982?

Mr. Roget. The Carter budget requested $15 million. The revised budget is $10 million.

FOREST MANAGEMENT PLANS

Mr. AuCoin. Increase for forest management would allow 50,000 more acres to be put under forest management plans. Would you state what these consist of?

Mr. Peterson. This is a plan prepared through the assistance of a service forester, a person who knows the standards, how the land might be managed, and how much timber to sell. He gives some technical assistance in helping the landowner identify his soils, how productive they are, and puts together a plan telling him what he can do with this and what the return might be. It is a small amount of assistance.

If the landowner needs more than just a small amount of assistance he is referred to a consultant. This is not a situation where you have somebody working your land for a week and giving you a detailed plan. If it requires more than a day the person is referred to a consultant.

STATE NURSERIES

Mr. AuCoin. What do the state grants under the seedling production activity involve?

Mr. Peterson. That is generally to help improve specific nurseries; in other words, to add to the capacity of nurseries, and provide special facilities to handle trees.

As the demand for timber grows there is a need for more trees. In some States they simply do not have the capacity to provide the number of trees required.

Mr. AuCoin. What are the total reforestation needs that this program is aimed at meeting?

Mr. Peterson. On private land we have between seven and ten million acres in the South which have not been reforested. There is a particular need in Southern Oregon.

If we add the total acres on private land there is about 120 million acres altogether which could be improved by reforestation and yield a reasonable rate of return.

Mr. ROGET. At the present time there is a need for reforestation of about one million acres a year of soft woods. About a third of that is presently being done.

Our programs are directed to the non-industrial part of this. This is a little over 600,000 acres per year. That is the problem we are trying to take care of.

URBAN FORESTRY ASSISTANCE

Mr. AUCOIN. You are proposing a $1.8 million reduction to eliminate the urban forestry program. In 1980, all 50 states and the territories participated in this program providing assistance to 3,700 urban areas.

What benefits will be lost if state and local governments are unable to pick up these activities?

Mr. PETERSON. We think this is an extremely good program. We think many States will continue this program on their own.

We will continue to provide research information as a back stop in terms of information on kinds of trees to grow on certain soils. What this removes is a grant to the states.

Mr. AUCOIN. What are the benefits the states are enjoying in this program now which they would likely not enjoy if they cannot pick up the programs themselves?

Mr. PETERSON. In many States they have helped communities which are expanding. They have helped them by providing somebody on the ground to advise people involved in development as to how to protect trees, how to place trees in subdivisions to reduce noise, how to reduce air-conditioning and heating needs, and how to make the urban area more liveable in general as well as saving energy. That is the reason it is so popular, because you can see some immediate payoff from the kinds of things they were doing in ignorance before.

For example, when I lived in Atlanta after I moved from the West, sub-dividers were leveling out lots, cutting the side of one tree and filling at another place. By the time the homeowner moved into the house, they had a little grass and all the trees would die.

The sub-divider did not know he was destroying trees by his method of operation.

Therefore, the State put a service forester there who worked with the subdividers. They were happy to do it differently so they could tell the prospective buyer that the trees were protected. They would consider that important.

One of the major areas is that most cities and States have substantial areas of public use of various kinds, whether they be street trees, small parks in the city, or whether they be small strips along interstate highways. Most States had no program to be concerned about those trees. The trees were just put there and left.

When the States started providing some assistance on this it was picked up very fast.

ALTERNATE SOURCES OF URBAN FORESTRY ASSISTANCE

Mr. AuCoin. Do you think HUD's Community Development Block Grants and Interior's HCRS urban park programs are possible alternative sources of Federal assistance in this area?

Mr. Peterson. Yes, to the extent funds are available and cities decide the priority.

Mr. AuCoin. Are they available? What is the Reagan budget proposal for those two areas?

Mr. Peterson. In the Urban Parks Program, there is nothing requested.

Mr. AuCoin. That is not much of an alternative.

Mr. Peterson. I am not familiar with the block grant. There will be a block grant. What the States will decide priority-wise, I don't know.

Mr. AuCoin. Is there not a 10 to 20 percent reduction proposal for the HUD Block Grant Program?

Mr. Peterson. That is probably true. To the extent that local communities decided this was important they could pick this up versus something else. It would be a question of priorities.

Mr. AuCoin. The Community Development Block Grants Program is one of those which has the fewest number of strings in the whole range of Federal programs right now. You have about a 20 percent reduction there, so we are really not talking about two very viable alternatives when we cite, as you have, these alternative sources of funding.

Mr. Peterson. I simply don't know to what extent they might be available.

Mr. AuCoin. Do you have any information as to how much funding State and local governments have added to the Federal urban forestry funds?

Mr. Peterson. They are required to at least match it.

Mr. Roget. I don't have a percentage. It would be well over 50 percent that the states are putting in.

Some states such as Florida and California have very large urban forestry programs. The money they receive from us is very small.

Other states, such as Nevada, for example, have two urban foresters where they match with Federal funds and have a small program. We hope they will pick it up.

Mr. AuCoin. Will you provide the information for the record?

Mr. Roget. Yes.

[The information follows:]

Contribution of States to Urban Forestry

In fiscal year 1980, the states contributed $3.4 million to the urban forestry assistance program. The Federal appropriation for fiscal year 1980 was $3.6 million of which $3.2 million was granted to states.

ASSISTANCE IN MANAGEMENT, PLANNING, AND TECHNOLOGY IMPLEMENTATION

Mr. AuCoin. Your request for assistance in management, planning and technology implementation is $6.9 million, an increase of $1.5 million. I would like you to provide for the record how the $1.5 million will be spent in 1982.

[The information follows:]

Assistance in Management, Planning, and Technology Implementation

The $1.505 million increase for assistance in management, planning, and technology implementation will be used as follows:

$40,000 will contribute to development of stronger and more efficient state forestry organizations through legislative training for State Foresters and help in developing management by objectives within requesting state agencies;

$130,000 will help states to continue prime timberland evaluations in association with their state forest resource planning; and

$1,335,000 will contribute to insuring that new and improved technology is available to and understood by state forestry personnel, landowners and other potential users, and that the cooperative forestry programs and activities are responsive to special problems, unique situations, and changing conditions. This technology implementation takes such forms as direct technical assistance to state forestry agencies and other cooperators, pilot and demonstration projects, and field tests. Of this amount, $400,000 will be used to conduct analyses to better determine the economic effectiveness of cooperative forestry programs and to compare the costs and benefits of alternative forms of assistance to nonindustrial private forest landowners.

PRIME FOREST LAND MAPPING

Mr. AuCoin. How many projects in the prime forest land identification initiative will be under way in 1982?

Mr. Roget. The $130,000 increase for 1982 would fund 4 million additional acres of prime forest land mapping in 16 counties. In fiscal 1981, the program funded prime forest land mapping projects in five States.

Mr. AuCoin. When do you plan to complete the prime forest land mapping effort? Tell us how you use it. First, when will it be done?

Mr. Roget. We do not have a completion date. It is a new effort. It started a few years back as a companion effort to identify the prime agricultural lands in the Nation.

The Department of Agriculture started a mapping program to identify these lands, and as that work proceeded, it was apparent we were looking at some of the same land as potential for prime agricultural lands. We have established criteria in conjunction with the National Cooperative Soil Survey, so we are mapping on the same basis.

Now we are starting to work with the State forestry agencies again trying to encourage the State forestry agencies to get into a program of identifying their fine forest lands on a site-specific basis as we are doing with prime agricultural lands. So as the States and counties proceed with developing some overall land use planning they will have this kind of information.

We are interested in more gross figures on this, also, in terms of program planning because we have a major need to start looking at our prime forest lands, that being something we need to give special consideration to.

We are so new at it that we do not have a completion date.

TECHNOLOGY IMPLEMENTATION

Mr. AuCoin. $1.3 million of the increase is for technology implementation. That is more than double the activity.

Mr. Roget. Yes.

Mr. AuCoin. Can you explain in more detail the basis for that increase and what is included?

Mr. Peterson. Let me give you a general answer and Mr. Roget can add to it.

Mr. AuCoin. Also, explain why that is a higher priority than the urban forestry program.

Mr. Peterson. We talked yesterday and this morning about the importance of research. One of the real problems is to get that research from the scientist to the three or four million individual land owners. Therefore, in recent years we decided we needed as specific a game plan as possible to get important new technology into use.

TRUSS FRAME SYSTEM

One of the things we plan to provide is information specifically for people building houses using the truss frame system, which uses much less lumber. This means we have to get information to major builders as well as people setting up the various building codes so that these codes may be modified to allow this system to be used. That is one example of taking new technology and putting it into practice.

Our basic feeling is that the Federal Government cannot do everything. We can contribute in a case involving building code changes across many States where you are talking about a major impact on society through technology. This is something we will put into practice, then try to move into something else.

The Urban Forestry Program is an ongoing thing year after year. That is a priority program State and local people can pick up.

Mr. AuCoin. Explain the building code assistance you provide.

Mr. Peterson. Every community has a building code.

Mr. AuCoin. Yes.

Mr. Peterson. It may say you have to have studs 18-inches on center. With this new truss frame system we can lengthen this distance to 24-inches by using the total truss.

Mr. AuCoin. To accommodate the new technology in building?

Mr. Peterson. To accommodate a much cheaper system.

Conventionally a house has a truss at this point shown in the drawing. This makes the entire house into an integrated structural unit. This truss frame was developed from looking at earthquake resistance of houses. It was found you can use considerably less material.

Here is an actual diagram. You can also run utilities through the webs in the floor trusses. If you have a basement you can finish it more easily. In many communities the truss frame technology cannot be put into practice because it is in violation of the building codes.

Mr. AuCoin. Is it a building technology which saves resources?

Mr. Peterson. It saves not only about 30 percent of the structural wood material which goes into the house, but the house can be erected faster. This has enormous potential in reducing cost of housing.

Mr. AuCoin. Is the job here to communicate this kind of information to those who control the local building codes?

Mr. Peterson. Yes.

NATIONAL INSTITUTE OF BUILDING SCIENCE

Mr. AuCoin. Have you heard of the National Institute of Building Science?

Mr. Peterson. Yes. That is a resource to building code people.

Mr. AuCoin. Is that not the same?

Mr. Peterson. It is one of the groups we will be talking to about this. We will be providing information to them as well as to people involved in the development of the Southern building code and the uniform building code. The United States does not have a common building code.

Mr. AuCoin. I understand that. We have a National Institute of Building Science funded by Congress to do the very thing you indicated.

Mr. Peterson. They are working on insulation, a large number of different things in terms of building science. We work purely on utilization of wood. They are very much aware of what we are doing and very aware of this development.

Mr. AuCoin. How many other people are doing forestry funding at the Federal level?

Mr. Peterson. Not anybody else that I am aware of. There was the urban grants program you spoke about.

If you let nature take its course in letting this go into production, you probably are talking about 15 years.

Mr. AuCoin. Unless the Building Science Institute wants to pick up the cost?

Mr. Peterson. That is what this proposes to do. Each of these technologists has to prepare a plan and ask who the right people are to get the information to. The Building Sciences people are key.

GIFFORD PINCHOT INSTITUTE

Mr. AuCoin. Your request for general forestry assistance is $875,000. That is a decrease of $6.4 million.

You are proposing deletion of funding for the Gifford Pinchot Institute in response to the need to reduce Federal spending. Have you done an analysis of the value of this facility and how you would provide subsistence maintenance if no funds are provided?

Mr. Peterson. The facility there will require some level of maintenance even if we drop it as a major conservation center. I would think that is probably in the neighborhood of a couple hundred thousand dollars a year. That is purely an estimate at this point. We never really operated that way.

Mr. AuCoin. $200,000 a year?

Mr. Peterson. Yes, just to keep it subsisting.

Mr. AuCoin. Where are the funds for this?

Mr. Peterson. Forest Service facility maintenance funds.

Mr. AuCoin. Your request in that category is for $875,000. Will $200,000 of that be committed to the Gifford Pinchot Institue? Pinchot Institute?

Mr. Peterson. No, the funds are for financial and technical assistance to resort owners impacted by the Boundary Waters Canoe Area Wilderness.

Mr. Roget. There is no money for Pinchot Institute in the budget.

Mr. AuCoin. Your request for the general forestry assistance is $875,000.

Mr. Peterson. That would all go to the Boundary Waters Canoe Area use.

I know this is rather confusing. Let me point out what is not in there.

Mr. AuCoin. Tell me where you will get the $200,000 for subsistence maintenance for the Gifford Pinchot Institute.

Mr. Peterson. Out of maintenance of Forest Service facilities funds.

FIRESCOPE FUNDING

Mr. AuCoin. You are also deleting the FIRESCOPE program, a $2 million decrease.

Mr. Peterson. That is correct.

Mr. AuCoin. Have you any idea how many of the Southern California agencies which are participating right now will elect to continue funding?

Mr. Leisz. We are not sure what would happen with the elimination of the Federal funding. There would have to be a sharp reduction in that program's activities.

There would be some level of maintenance conducted there because about nine participants, including the Federal Government and the state, are cooperating in the program. However, it will be drastically reduced.

APPLICATION OF FIRESCOPE TECHNOLOGY

Mr. AuCoin. How many States have requested "spin-offs" of the technology developed or tested through this program?

Mr. Roget. Florida and Colorado. Colorado specifically requested assistance. Utah has requested information. Then we have several of the other States with large fire-fighting organizations. Although they have not made specific requests, they have expressed interest.

We see the opportunity to provide some of the technology to these states as a major opportunity to increase the efficiency of fire-fighting organizations.

Mr. AuCoin. How many states have actually met requirements?

Mr. Peterson. Florida, Colorado and Utah.

Mr. AuCoin. How many have indicated possible requests?

Mr. Roget. Probably another dozen states have been identified as having a high potential for utilizing this technology.

Mr. AuCoin. How many other states have implemented such technology?

Mr. Roget. None.

Mr. Leisz. A number picked up parts of the fire modeling. This has been widely adopted across the United States.

Mr. AuCoin. Last year there was no request for either one of these two items, Gifford Pinchot Institute or FIRESCOPE programs, so we are back at it again, aren't we?

Mr. Peterson. That is correct.

Mr. AuCoin. Not much enthusiasm from your side of the table?

Mr. Peterson. It is not a matter of enthusiasm but a matter of trying to use limited funds in the best possible places.

Mr. AuCoin. Did the committee not convince you when they questioned you during the hearings last year and during the markup where the committee took the initiative and added $580,000 for the Institute and $2.4 million for FIRESCOPE?

You read the record carefully and were not convinced by it?

Mr. Peterson. I am only one of several who have to be convinced.

DUTCH ELM DISEASE FUNDING

Mr. AuCoin. You are also deleting funding for Dutch elm disease to shift responsibility to the states and cities who are the beneficiaries. Why is this treated differently from other insect and disease programs funded by the Federal Government?

Mr. Peterson. Dutch elm disease, as indicated, is one which effects city trees throughout the city. We did engage in a research project to try to demonstrate Dutch elm disease control and elm tree utilization. We provided as much information as we have available as to how to control it.

It is one which takes a very specific action plan by an individual city because you are dealing with individual trees. You are dealing with very high costs per tree.

The Federal participation was to establish demonstration areas that is complete, and local governments now have responsibility for maintenance.

Mr. AuCoin. So it is just the fact that the trees are in a city rather than elsewhere?

Mr. Peterson. And the cost, too.

Mr. AuCoin. That is $500,000. That is all we are talking about.

Mr. Peterson. That was the Federal assistance.

Mr. Roget. This program was set up for a demonstration program. We have completed the demonstration projects and have demonstrated we can do some things about Dutch elm disease. This program was scheduled for elimination as a demonstration project.

Mr. AuCoin. Other insect and disease programs have not been on a demonstration project basis?

Mr. Roget. Not on the same basis as Dutch elm disease.

Mr. AuCoin. Is there some reason for that other than the fact the trees were in the city?

Mr. Roget. That was the major reason. Also, Dutch elm disease is a much more intractable disease to treat on any wide scale basis. It pretty much requires individual tree treatment to handle it.

Mr. Peterson. You are talking about a program which can work only if all of the landowners themselves agree it should work.

Mr. AuCoin. Where do you find most of the Dutch elm disease? Is there a lot in the Midwest?

Mr. Peterson. Yes.

Mr. AuCoin. Illinois?

Mr. Peterson. Yes, some in Illinois.

Mr. AuCoin. In Chicago?

Mr. Peterson. Minnesota and Missouri.

Mr. Roget. States participating in the demonstration projects were Minnesota, Wisconsin, Georgia, Colorado and California. They were the participants in the demonstration projects, scattered throughout the country.

BOUNDARY WATER CANOE AREA

Mr. AuCoin. The Carter budget proposed $3.9 million for the Boundary Water Canoe Area, and the Reagan budget reduces that to $875,000. Most of the decrease is $3 million in grant funds to the state to maintain overall timber production in anticipation by 1982 of other sources of assistance being available from new and proposed legislation.

What is the new and proposed legislation?

Mr. Peterson. The state itself is working on a special program within the State of Minnesota. It has been a problem for Governor Quie looking at how the state might build up its forestry program.

I think he probably anticipated that this $3 million of Federal funding would be available as part of the overall effort. The State itself is moving to do more intensive management of lands.

Mr. AuCoin. In effect you are indicating that new proposed legislation by Governor Quie would be an alternative for the $3 million?

Mr. Peterson. I am not sure whether you would need legislation. The governor is working on a special program.

Mr. AuCoin. Will the assistance provided be comparable as to amount based on what you understand has been previously provided in this program?

Mr. Peterson. I don't know in terms of what he might do regarding discretionary and block grants.

Mr. AuCoin. What block grants?

Mr. Peterson. Revenue-sharing or other block grants.

Mr. AuCoin. What other block grants are available? Do you mean housing and community development block grants programs?

Mr. Peterson. As I understand it, maybe the terminology of "block grants" is wrong, but the state gets certain revenue sharing.

Mr. AuCoin. General revenue sharing?

Mr. Peterson. Yes. Whether they use any of that for this purpose I cannot tell you.

Mr. AuCoin. That is not in the proposed legislation. Will they will have to absorb this?

SOURCES OF NON-FEDERAL FUNDS

Mr. Peterson. In the short run that would be true.

Mr. AuCoin. What are the sources of non-Federal funds you cite as expecting to bear an increasing share of the costs of managing these State and private lands?

Mr. Peterson. Most of the States have under way state forest resource plans. We are providing some assistance in that effort. Many states have a good size-up of their forested lands and are deciding to put more funding into it.

Mr. AuCoin. I meant this specifically for the Boundary Canoe area.

Mr. Peterson. I cannot give you specifics in that area.

Mr. AuCoin. Is that because you do not have it now or do you have it at all?

Mr. Peterson. We have not had an opportunity to talk to the State on that subject in the last few days. We can try to get some information for you.

Mr. AuCoin. Have you not cited other sources of non-Federal sources?

Mr. Peterson. A general statement that if the state considers it a priority above other things, then they can shift money into it. It does not necessarily mean they will, although I think in the case of Minnesota it might well happen because of the governor's interest in reforestation and building up the forest land base in general.

Mr. AuCoin. You are decreasing technical assistance to resort owners and outfitters by $18,000. How did you determine that amount?

Mr. Peterson. In all fairness that was determined as part of an across-the-board cut in travel and other things. This is an effort to reduce the net outlay.

Mr. AuCoin. Just a percentage figure?

Mr. Peterson. Yes.

Mr. AuCoin. How much will remain for technical assistance to these people?

Mr. Peterson. $875,000.

Mr. AuCoin. The committee would like you to provide for the record the percentage of state matching required by law or administratively for each of your state and private program activities.

Mr. Peterson. Generally 50 percent.

Mr. AuCoin. Will you give us details?

Mr. Peterson. Yes.

[The information follows:]

State Matching Requirements

The legislative requirement in the Cooperative Forestry Assistance Act is that a state must at least match the amount of Federal funding if it opts for consolidated payments, i.e., a single grant combining the funds of several cooperative programs. Administrative policy requires matching that is consistent with traditional rates when grants are administered on an individual basis. These individual program matching rates are:

At least 50 percent non-Federal funding for rural forestry assistance, urban forestry assistance, rural fire prevention and control, and the pest action portion of forest insect and disease management;

Variable according to landownership for insect and disease suppression projects; 50 percent Federal for private landownerships smaller than 500 acres, 33⅓ percent for private landownerships larger than 500 acres, and 25 percent for non-Federal public lands;

Discretionary and up to 100 percent Federal funding for management assistance and technology implementation; and

Up to 80 percent Federal funding for planning assistance.

NATIONAL FOREST SYSTEM FUNDING

Mr. AuCoin. Moving to the National Forest System, you are requesting $958,678,000 for the National Forest System, which is 86 percent of the RPA. This is $30 million below the Carter request and $16.6 million below the 1982 base. However, it is $79.1 million over the 1981 appropriation.

LEVEL OF TIMBER SALE PROGRAM

Both the Carter and Reagan budgets assume 11.9 BBF sale in fiscal year 1981, as we have discussed. Does the current proposal include what is required for out-year investment to maintain this sales level?

Mr. PETERSON. Yes.

Mr. AuCOIN. Would that be in jeopardy if that level dropped below 11.9; is that right?

Mr. PETERSON. That is correct.

MINERALS AREA MANAGEMENT FUNDING

Mr. AuCOIN. Under Minerals Areas Management, a $5 million increase is requested for minerals area management, to a total of $26.1 million, for the evaluation and processing of leases and operating plans for exploration development of energy and hard rock minerals.

How are you managing the increasing interest in minerals development on National Forest lands? What problems do you have with regard to wilderness requirements?

INVENTORY OF MINERAL LEASE APPLICATIONS

Mr. PETERSON. We have a number of problems. The biggest one is the sheer magnitude of the number of leases. I am not sure you were here yesterday when we showed the chart which shows a buildup in the number of mineral lease applications. We are getting a considerably faster buildup in the number of mineral lease applications than we anticipated. Unless we can act on these lease applications reasonably soon it tends to hold up the development work necessary to provide the energy.

Just to show you how this has changed since we put together the RPA, the green shows what we anticipated. You can see our new projection. The reason for this major increase in minerals activity, is to catch up with these applications.

Mr. AuCOIN. One and a half times greater by 1990.

Mr. PETERSON. Even that may be too low because of increasing energy costs and decontrol which provides more incentive for people looking for energy resources in this country. This has really made a boom situation to lease public land. Those who want to lease public land want to bring in applications to get leases reasonably soon.

We currently go through a very elaborate procedure to evaluate those requests, including looking into endangered species questions, rehabilitation problems, access questions, and so on.

We then recommend either leasing, no leasing, or leasing with certain stipulations, to the Bureau of Land Management which generally issues the leases. However, we do all the processing of them up to actual issuance of the lease.

MINERAL LEASES AND WILDERNESS REQUIREMENTS

Mr. AuCOIN. Given that, what conflicts are there with the wilderness requirements? How much of that problem is that?

Mr. PETERSON. There is a perception problem and a legal problem. The Wilderness Act literally makes wilderness areas available until December 31, 1983 for mineral leasing and complete operation of the mining laws.

Mr. AuCOIN. Cuts it off in December of 1983?

Mr. PETERSON. Yes. Since companies have not asked for mineral leases for those areas because they were remote and expensive, the public has the perception those areas are closed to mineral leasing. Therefore, any one of these wilderness areas we propose to lease is very likely to be a major controversy.

Right now we have requests for leasing in the Bob Marshall area in Montana. Each of those will be highly controversial.

There is not a legal conflict as much as we have a question of how you evaluate other values versus the mineral values, particularly when you might not know what is there.

Mr. AuCoin. When was that cut-off date set?

Mr. Peterson. In 1964 when the Wilderness Act was passed.

REVENUES FROM MINERAL LEASES

Mr. AuCoin. What are the total mineral revenues from National Forest lands, including the amount collected by the Department of the Interior, and what are you projecting for the next three years?

Mr. Peterson. We do not have projections. One of our problems is that the data kept now does not clearly distinguish the kinds of lands. Leases are issued by the Bureau of Land Management on all lands.

Our estimate for 1980 was $219 million but that is not an accurate figure. It is perhaps close.

Mr. AuCoin. Can you make a projection for the next three years, if not today for the record?

Mr. Peterson. We have a projection in the resource planning document. Our estimate is that that will quadruple in about the next 10 years, something of that magnitude.

[The information follows:]

Mineral Revenues

The total mineral revenues for fiscal year 1980 from National Forest lands, as well as the Department of the Interior, Bureau of Land Management, are as follows:

National Forest public domain lands—$47.1 million;
National Forest acquired lands (includes National Grasslands)—$40.5 million;
Bureau of Land Management onshore receipts—$557.9 million; and
Bureau of Land Management offshore receipts—$1,948.0 million.

Projected Mineral Receipts

Projection of mineral receipts for the years 1982–1985:

	Millions[1]
1982	$50
1983	60
1984	66
1985	70

[1] Estimated.

Returns to the Federal Treasury from mineral activities on National Forest and Grassland-administered lands are expected to continue to increase through 1983. The implementation of the Federal Coal Program, increasing energy requirements, and renewed interests in domestic supplies of critical minerals will provide the major push behind this growth in Treasury returns due to increased leasing and production.

Beyond 1983, growth due to new development will continue, but at a slower rate due to a number of considerations. Among these, capital constraints, environmental concerns, and near completion of the thrust in coal leasing will combine to slow the growth in new mineral developments.

RESTORATION OF MINERAL SITES

Mr. AuCoin. What happens to a wilderness area when mineral discoveries occur and they are developed and exploited? Can you maintain it as wilderness under those situations?

Mr. Peterson. Certainly not in the specific location where you have a well. We have no experience to date in operating wells inside of wilderness areas.

Mr. AuCoin. None whatever?

Mr. Peterson. None whatever as far as I am aware.

Technically, however, if you exhausted the oil and gas over a period of 20 or 30 years you might be able to pull out the rig and restore the land depending on the type of land. You can restore in the East fairly easily, and restore in some parts of the West. For example, in Oregon you can restore at middle elevations.

In alpine areas it is difficult to restore within a reasonable period of time.

Depending on whether it is at the edge of the area or the center and access, it is difficult to tell what the full impact will be.

That provision to allow wilderness areas to be open for 20 years was one of the significant compromises made to get the Wilderness Act passed.

Mr. AuCoin. Logging interests are shut out of the wilderness designation?

Mr. Peterson. Yes.

Mr. AuCoin. People whose business it is to exploit oil, gas and other kinds of resources are able to do so?

Mr. Peterson. Mineral resources basically, yes.

There is a provision in the Wilderness Act to allow grazing to continue. That is another use grandfathered into the Wilderness Act.

Mr. AuCoin. Are there many wilderness areas which have this sort of activity today going on?

Mr. Peterson. Not very many in wilderness areas. There is one in Montana, a locatable mineral exploration is going on in Western Montana.

Mr. AuCoin. Where?

Mr. Peterson. The Kootenai National Forest.

Mr. AuCoin. How long has that been going on?

Mr. Peterson. Prospecting maybe 10 years. Drilling goes back a couple years. That case is currently in court.

Mr. AuCoin. A suit is involved?

Mr. Peterson. Yes.

Mr. AuCoin. They are going ahead?

Mr. Peterson. That is right.

Mr. AuCoin. The activity is going ahead but there is a court case pending?

Mr. Peterson. A court case just came about.

Mr. AuCoin. What happened to that wilderness area as a result of this activity?

Mr. Peterson. As I mentioned earlier, the area was immediately impacted. If you looked at the area in toto it affects only a very small part of the entire area. That area is in the Cabinet Wilderness Area. This affects only a small part of it.

The one question being litigated is what might be the cumulative impact on this on such things as the grizzly bear.

Mr. AuCoin. Habitat?

Mr. Peterson. Yes.

Mr. AuCoin. Did you want to add something?

Mr. Peterson. The Overthrust Belt which goes through Utah, Wyoming, Montana, and so on, may have the largest amount of oil and gas which is yet undeveloped in the United States. We are talking about possible large values of gas but also very high values people place on surface resource because much of that is inside of wilderness areas.

Mr. AuCoin. Let us move to land management. We have some additional questions we will submit for the record.

Mr. Peterson. All right, sir.

LAND EXCHANGE PROGRAM

Mr. AuCoin. Your request for land management is $26.2 million, essentially level with the 1982 base. The 1982 program provides for examination and fair market value appraisal of 112,800 acres and approval of exchanges involving 87,205 acres of lands to be transferred to public ownership.

We need to know how you arrive at these figures.

Mr. Housley. That is based on our experience from handling similar volumes of work in past years.

Mr. AuCoin. How does that figure compare to 1980 and 1981?

Mr. Peterson. The 1981 appropriation for land management was $23.5 million.

Mr. AuCoin. I want the acreage comparison.

Mr. Housley. I would estimate it is approximately the same acreage of land involved but probably a higher cost for the activity. There may be a slightly larger acreage involved.

Mr. AuCoin. Would you give the committee that information?

Mr. Housley. Yes, sir.

[The information follows:]

LAND EXCHANGE PROGRAM COMPARISON

	Non-Federal acres	Dollars needed (millions)
Fiscal year:		
1980	75,751	$6.409
1981	80,160	7.616
1982	88,760	8.177
Total	244,671	$22.201

DELAYS IN SPECIAL USE APPLICATIONS

Mr. AuCoin. What is the backlog of special use non-recreational applications? What kinds of delays are you expecting in processing them?

Mr. Peterson. Let me give you some examples. There are requests for power lines, gas lines, water lines, just about every kind of activity you can imagine where somebody needs to cross National Forest System land to carry out some activity.

Some of it involved transcontinental kinds of things, like the Northern Tier pipeline. Others represent major hydroelectric transmission lines.

We never tried to keep a record of the backlog at the national level as far as I know.

Mr. HOUSLEY. We handled some 1500 cases a year in recent years.

Mr. AUCOIN. What will be the impact of delays you are faced with?

Mr. HOUSLEY. We will just be providing the service a little more slowly than we would like to.

Mr. AUCOIN. What will that mean?

Mr. HOUSLEY. Delays in issuance of permits.

Mr. PETERSON. We are engaged right now with other agencies in a wholesale review of all the regulations in place to see whether we can simplify some of the processes. Some of the processes involved could be simplified.

Mr. AUCOIN. Delays mean money, do they not?

Mr. PETERSON. To the proponent, yes.

Mr. AUCOIN. You have no way of knowing how much?

Mr. PETERSON. We are not talking about excessive delay here. Depending on the magnitude of the project we are talking about 60 days to one year.

Mr. AUCOIN. One year can be pretty expensive for some people.

Mr. PETERSON. That is more likely to be a major project where a lot of information needs to be provided.

GEOMETRONICS PROGRAM

Mr. AUCOIN. The Reagan budget proposes decreasing geometronics by eliminating the Automated Cartography Project. What does that project involve and what is the impact of eliminating it?

Mr. HOUSLEY. That is a development project for improving some technology we have been working on in order to speed up mapmaking and use modern electronic data processing methods. This will delay the application of that kind of technology in our mapmaking facility.

Mr. AUCOIN. What is the impact of eliminating this?

Mr. HOUSLEY. It will delay the application of that use of technology in actually making maps by that new process.

Mr. AUCOIN. What is the consequence of that? Is that good or bad?

Mr. HOUSLEY. It means we will have to use old maps a little longer.

Mr. AUCOIN. What does that mean?

Mr. HOUSLEY. It will impact on our resource management to some extent but it is the kind of activity that is deferable.

Mr. AUCOIN. What kind of impact will it have?

Mr. HOUSLEY. It will make us use less current information in our resource management and planning activities.

Mr. AUCOIN. What is the result of all that? You have not told me whether that is good or bad.

Mr. PETERSON. Let me try to help you. We will be making 27 less base maps used in the field. It is difficult to know what the impact is of not knowing the location of a road. That can result in merely inconvenience or it could result in a fire-fighter not using a road which goes to a fire. At times these things can be significant and other times it is merely inconvenience.

What we are trying to do with this Automated Cartography Project is to make the whole process more efficient and cost less money. That is from an investment standpoint.

The other side is that we will not revise the maps as early as otherwise.

Mr. AUCOIN. Somebody might run down a wrong road to a fire in the meantime.

Mr. PETERSON. That is the worst thing.

Mr. AUCOIN. You also reduce the number of base maps for completion by 27.

Mr. PETERSON. That is what I referred to earlier.

Mr. AUCOIN. Have you explained to your satisfaction the significance of this?

Mr. PETERSON. Given the need to reduce the budget I think this is one place where we can reduce with less impact than in other places. At least that is our judgment at this point.

Mr. AUCOIN. Then if you have a fire there will be that much less timber harvested and fewer receipts which would go to Treasury. Then your budget problem is greater.

Mr. PETERSON. We hope not.

Mr. AUCOIN. There goes the 10 percent.

Mr. PETERSON. Let's hope the fire fighter discovers the road is there before he goes to a fire.

Mr. AUCOIN. You might want to put a note on the map.

Landline Location is next.

TRESPASS CASES

Mr. AUCOIN. Your request for landline location is $30.2 million, a decrease of $2.7 million.

You have 50,000 known trespass cases, which you estimate will cost $112 million to resolve. What is the basis for that estimate?

Mr. HOUSLEY. Based on inventories of the problems we have discovered in the field in the past.

Mr. AUCOIN. How much is included in the 1982 request for this purpose?

Mr. PETERSON. $30.2 million.

Mr. AUCOIN. All for trespass?

Mr. PETERSON. No. That is primarily to support the timber program before we sell timber.

Mr. AUCOIN. What is included in the 1982 request for the trespass part of it?

Mr. PETERSON. I am not sure we have a breakdown.

Mr. HOUSLEY. I do not have a breakdown on that.

Mr. PETERSON. I would estimate about 90 percent is related to the timber program.

Mr. AUCOIN. Will you provide the information?

Mr. PETERSON. Yes.

[The information follows:]

Landline Location Fund for Trespass Resolution

The part of land line location funds used for trespass resolution is no more than $1.5 millions annually. The rest is required for timber and other resource support.

Mr. AuCoin. You estimate about 2,000 new cases each year.

Mr. Peterson. That is correct.

Mr. AuCoin. What we need to know is how long it will take to resolve these cases.

Mr. Housley. We will provide that, sir.

[The information follows:]

Time To Resolve Trespass Cases

Simple Trespasses may be resolved in two weeks to 30 days, if the resolution is the removing of improvements or issuing a special use permit. Resolution could be as long as 7 to 10 years if litigation is involved.

LANDLINE LOCATION IN SUPPORT OF TIMBER PROGRAM

Mr. AuCoin. The Reagan budget states that the proposed level will reduce the property boundary survey for support of the timber sale program by 40 miles. Yet the total timber sale program will not be reduced. Can you explain how that is possible?

Mr. Housley. We can accomplish the timber sale program by the way the timber sales are located. We will set back lines adjacent to private land so it will reduce the danger of trespassing with our sales program. We perceive it will be possible to make targets at this level of landline location.

Mr. Peterson. What actually will happen is that you would like to run a line from this corner to that corner to know specifically where the line is.

If you have a timber sale here, though, and no money to run the line, you might run a piece and set back from that line to be sure you are safe. Some day you can put in a line.

That is not the best way to do it but it is one way to get the job done without running a line.

MAINTENANCE OF FACILITIES

Mr. AuCoin. Under Maintenance of Facilities, you are requesting $15.6 million for maintenance, a decrease of $142,000 which will delay condition surveys and other planning activities which will affect future years' programs.

One of your areas of emphasis will be health and safety, in line with recommendations in a GAO report issued last October. The report is entitled, "Facilities in Many National Parks and Forests Do Not Meet Health and Safety Standards."

What percentage of the total health and safety requirements will be met with your 1982 request?

Mr. Peterson. Let me point out that the GAO report referred primarily to recreation facilities. These are administrative facilities like offices, warehouses and facilities we ourselves use as differentiated from public recreation facilities.

This relates to about 20,000 facilities we use for fire, administration, and other purposes where our people use them.

Mr. AuCoin. Do you have an overall maintenance plan?

Mr. PETERSON. Yes, we have an overall maintenance plan based on traditional surveys. In all candor in the last 10 years we have never been financed to the levels which would be indicated. We have used the human resource people and others to get part of that work done over time. It has worked fairly well in some places but we are not up to the level indicated.

Mr. AUCOIN. It looks even more bleak in the future if the budget goes through.

Mr. PETERSON. We will have to concentrate maintenance on higher priority items, like health and safety. We will not repaint, for example, if it is merely helping the looks of an area. We will also not do other heavy maintenance unless it is related to health and safety.

Mr. AUCOIN. Forest road and trail maintenance is next.

FOREST ROAD CLOSURES

Mr. AUCOIN. You are requesting a decrease of $1.7 million for road maintenance, which is $5.6 million below the Carter budget. You are also requesting a decrease of $2 million in trail maintenance. That item is down $2.1 million from the Carter budget.

How many roads will be closed or remain closed at this level? How many total miles of road maintenance will be accomplished at this level?

Mr. PETERSON. We cannot tell you how many roads will be closed because we will leave that up to the field to make a judgment on where they can close some roads and still serve an area.

Mr. AUCOIN. You did not get that information before this figure was arrived at?

Mr. PETERSON. No, that would not be feasible because we are talking about a road system which includes about 10,000 miles of new road miles a year. The existing system is 110,000 miles, a huge system.

Mr. AUCOIN. How are we to evaluate this item if we do not have at least a reasonable understanding of the number of roads which might be closed?

Mr. PETERSON. We had about $75 million appropriated in 1981. We are asking for $80 million this year.

That does not quite keep up with inflation, but it is not a major reduction. We think we can manage this by reducing some maintenance on some roads and closing other roads. We think it is within a managable area.

Mr. AUCOIN. How can we arrive at a conclusion as to whether or not it is managable without knowing to what extent closures will be applied to these roads?

Mr. PETERSON. All we can tell you is that this does not represent any dramatic number of additional closures. This represents some pinpointed closures here and there where we can save maintenance money and where there is not that much use of the area.

Mr. AUCOIN. How many miles of roads would represent a non-dramatic closure?

Mr. PETERSON. Probably service-wide, we may close an extra thousand miles of road. That might be only five or ten miles in an individual forest. That is not a great figure.

Mr. AUCOIN. We are talking in approximately that range?

Mr. PETERSON. I would guess in about that range.

Mr. HOUSLEY. Some of those might be seasonal closures, during the wet season and during the snow season, to avoid damage.

ROAD MAINTENANCE

Mr. AUCOIN. How many total miles of road maintenance might not be accomplished as a result of this reduction?

Mr. PETERSON. I don't think there will be much difference in mileage but there could be a difference in frequency of maintenance and the level of maintenance.

Mr. HOUSLEY. We will try to do minimum things to preserve drainage, keeping culverts open, rather than surfacing replacement and things of that sort. It is a matter of the level of maintenance rather than the mileage.

Mr. PETERSON. I said we had 100-some thousand miles of road maintenance. It is actually about 225,000 miles for 1980.

Mr. AUCOIN. What does that do to your estimate?

Mr. PETERSON. I think it is still okay.

TRAIL MAINTENANCE

Mr. AUCOIN. The Carter budget would have provided an increase for 83,000 miles of trail maintenance for visitor safety and convenience and 15,000 miles for visitor safety and to protect the facility.

How do you distinguish between the two types?

Mr. HOUSLEY. I am not sure I understand the question, Mr. Chairman.

Mr. AUCOIN. We have a Carter budget which would provide 83,000 miles of trail maintenance for something called visitor safety and convenience and 15,000 miles for something called visitor safety and protection of the facility. That comes from your justification. I would like to know what the difference is between the two categories.

Mr. HOUSLEY. Convenience deals with the smoothness factor and the clearing done on the trail, whereas resource protection deals with drainage on the trails. Visitor safety deals with opening trails in the springtime and removing windfalls and dangerous trees which overhang the trail.

Mr. AUCOIN. What struck me was that visitor safety is listed twice, two fairly broad categories.

Mr. HOUSLEY. That indicates in either case we would provide for visitor safety. In one case we would provide for convenience at the higher level and for resources protection at the lower level.

Mr. AUCOIN. What is an example of some of the things you would do for protection of the facilities?

Mr. HOUSLEY. We would preserve the drainage on the trail by reconstruction of the water bars, providing for outsloping, and correcting incipient erosion.

Mr. PETERSON. An example of this would be in your country. In the spring we would open up the trail, log it out, and put in drainage. If later in the season we had blowdowns, where it was inconvenient, we would not take those items out. It is not a question of whether the trail is safe.

Mr. AuCoin. The Reagan budget shows the same total miles of trail maintenance, 94,000 miles, as in the Carter budget. Can you explain the decrease in funding?

Mr. Peterson. Yes. In the case I just cited we would still have the same mileage of trails maintained. We would not go back and remove the windfalls later on in the season from that trail.

Mr. AuCoin. You referred to improved efficiency in management. How will improved efficiency and management avoid facility deterioration?

Mr. Peterson. We would go to a four day work week so the crews do not spend so much time traveling. They work four 10-hour days. In extreme back country, they may work six days on and six days off.

We have done development work on equipment as well.

Mr. AuCoin. How does that go over with personnel?

Mr. Peterson. The people seem to like the 10-hour days because they get more time off. We are talking mostly about young people who appreciate the time off.

Mr. AuCoin. That is a permanent budget efficiency you might pursue?

Mr. Peterson. Yes. We started that last year with field crews in general. It also reduces energy costs.

Mr. AuCoin. You started that in the last budget year?

Mr. Peterson. Yes, and we will do more of it this coming year. That is not just trail crews. You can save one day's travel a week.

TIMBER SALES FUNDING

Mr. AuCoin. Timber sales administration and management is next.

Your request is $208.6 million, which is 10.6 million below the 1982 base, and a decrease of $1.8 million from the Carter budget.

The Reagan revision states that the decrease will be accomplished through increased efficiency in timber sale preparation coordination and by increasing efficiencies related to the administration of timber sale contracts.

How will you accomplish these efficiencies?

Mr. Peterson. This was part of a general across-the-board reduction related to less travel, not filling some permanent full-time positions as fast, and looking at ways we might streamline our processes. This is a whole myriad of things and not just one thing.

Mr. AuCoin. Will that item alone save you $1.6 million from the Carter budget?

Mr. Peterson. Not one thing alone but a whole lot of things together.

Mr. AuCoin. All of those efficiencies you mentioned?

Mr. Peterson. Yes. I might point out that will take pressure. It is not easy to do. It will challenge our on-the-ground managers.

Mr. AuCoin. What kinds of pressures will be created?

Mr. Peterson. We will be asking our field managers to look at all of their procedures to see how they are going about their job, what kinds of techniques they are using, can they use different sizes of crews for different things, and are they using new technology which came on line?

It probably will not be one or two things but a whole series of things. The major reduction which was shown in the earlier budget was a shift to the Tongass Timber Supply Fund. That is the reason for the large reduction between 1981 and 1982.

Mr. AuCoin. I thought those funds in Alaska were from local receipts, referring to the Tongass Fund.

Mr. Peterson. In the 1981 budget those funds were in our regular budget. In 1982 they will come out as special funds. That is shown elsewhere in the budget, so it shows as a reduction here. That explains the $10 million reduction.

TIMBER RESOURCE PLANNING

Mr. AuCoin. The increase for timber resource inventory planning will allow greater assistance in the preparation of individual National Forest land and resource management plans.

Have you told the committee how many have been completed? If not, tell us now.

Mr. Peterson. We have about 20 percent of the plans. We have it scheduled by forest. Would you like to know that?

Mr. AuCoin. The number completed, the number yet to be done, and what the schedule is for completing them.

Mr. Peterson. We have completed one draft in 1980. We expect to complete 28 in 1981, 50 in 1982, 38 in 1983, and three in 1984. That would complete the job.

In Region 6, we anticipate four in 1981, seven in 1982, seven in 1983, and one in 1984.

SILVICULTURAL EXAMINATION

Mr. AuCoin. You are increasing silvicultural examination by $2.4 million over 1981 to provide emphasis on data collection and certification of silvicultural prescription for future timber sales. Can you be more specific on how the funds will be used?

Mr. Peterson. This is where we look at a specific stand of trees to see how old they are, what is happening to the stand, the kinds of insect and disease problems present. From this information we develop from this examination data which is used in making a decision about future sales, a decision about what areas are in need of reforestation, what areas might have an insect problem built up and need attention. That is the basic data gathered by a trained silviculturalist. We refer to this as the writing of a specific prescription.

FREE USE AND COMMERCIAL FUELWOOD PROGRAMS

Mr. AuCoin. What is the status of your special study on the effects of free use and commercial fuelwood programs on resource management, administration, trespass and user safety?

Mr. Peterson. We have completed the basic data collection phase of that, getting information from each of the regions. Our policy analysis group is developing policy options for our consideration.

We will complete that study, I would guess, in the next couple months. We will have information then in time to put it into effect for the next season.

Mr. AuCoin. You estimate cost of $5.2 million to administer this program in 1982?

Mr. Peterson. That is correct.

Mr. AuCoin. How many permitees does that assume?

Mr. Peterson. Something over 900,000. One hundred seventy-two thousand permits were issued in 1980. It may well go to over one million by 1982.

Mr. AuCoin. How does the cost estimate of $5.2 million compare to 1980 and 1981?

Mr. Peterson. We started off at $5 million as I recall.

Mr. AuCoin. In 1980?

Mr. Peterson. And $5.2 last year.

Mr. Sherman. You estimate $5.2 for 1982?

Mr. Peterson. We are hoping to keep it at that. Some of the units, as they have gotten more experience, developed some fairly unusual ways of doing the job. They have self-permit issuing procedures, for example, where you can go to the ranger station and there is a permit-dispensing machine or facility there. You can write yourself a permit. We supervise the activity. That reduces the cost so you do not have to open the office on Saturday and Sunday.

That is a tight number but I think we can do it okay.

WOOD UTILIZATION ACT

Mr. AuCoin. There has been no request for funding for the Wood Utilization Act which was recently passed.

Mr. Peterson. That is right.

Mr. AuCoin. How much was authorized?

Mr. Peterson. The conferees agreed on $25 million, I believe, for each year of a five-year period, 1982 through 1986.

Mr. AuCoin. Say that again.

Mr. Peterson. Conferees agreed on $25 million for each year for five years beginning with fiscal 1982.

That act became law on December 19, 1980, which was well after the 1982 budget was locked up. What we propose to do now is to provide that information to the field to find out where we have our best opportunities to use those new provisions.

At the present time there is no funding request to actually put this to work in 1982.

Mr. AuCoin. Did you make your request to the Department for funding?

Mr. Peterson. No, because the act passed after the budget request went forward.

Mr. AuCoin. Could any amount of money be effectively spent if it were appropriated for 1982?

Mr. Peterson. Yes. I would suggest, Mr. Chairman, we might want to go at this a little slower than indicated in the authorization level. We consider it important to have residues removed from the sale and have them go into some type of commercial operation and not become a waste problem. Therefore, we need experience in working some successful operation.

Mr. AuCoin. Some seed money in 1982 would be all right?

Mr. **Peterson**. That is right. I would not really suggest you go the full amount the first year, even if you are inclined to. I think we need some experience with it.

Mr. **AuCoin**. How much would it require to have a useful test?

Mr. **Peterson**. Probably $5 million to $10 million, somewhere in that neighborhood.

That would not be net outlay because we would be reducing the amount of money we are spending on other things which shows up in another pocket. It will show up now as an expenditure because the credit shows up as a cost.

Mr. **AuCoin**. It is a straight dollar-for-dollar match?

Mr. **Peterson**. That is the ideal case. By spending money to burn/or to spend money we are now using for reforestation.

Mr. **AuCoin**. Can you tell the committee how much of a reduction you would have in these other activity areas if $5 million were provided for the wood utilization program?

Mr. **Peterson**. I don't think we can right now.

Mr. **AuCoin**. How soon can you have that information?

Mr. **Peterson**. We will have to check on it. We did not ask the field to report on that. It will be another few months.

Mr. **Leisz**. We can take the information we collected some months earlier and make an estimate from that.

Mr. **AuCoin**. That would be useful to us.

Mr. **Peterson**. We will give it to you with a considerable plus or minus factor.

[The information follows:]

Wood Utilization Act Implementation

Should monies be appropriated in 1982 to start implementation of the Wood Utilization Act, the following table reflects initial needs and costs:

1. Develop short- and long-range plans, do feasibility test of proposals and environmental assessments	$785,000
2. Initiate projects and demonstrations [1]	1,435,000
3. Make information available on programs and projects	60,000
4. Residue removal credits for timber sales	2,000,000
5. Administration costs	720,000
Grant total	$5,000,000

[1] Actual demonstration projects have not been chosen to date.

A sizable sum of money in 1982 would be used for demonstration projects with approximately $2.0 million to be used for stumpage credits to timber purchasers for removing residue normally removed by the Forest Service as a part of the Brush Disposal activity.

Removals affected by stumpage credits will reduce in a like amount the volume ordinarily removed under the Brush Disposal program. Accurate data is not currently available, however, it is estimated that 50 percent of the Brush Disposal job will be affected by this residue removal credit system.

MOUNT ST. HELENS SALVAGE

Mr. **AuCoin**. I want to turn to recreation use. Before I do, however, I would be remiss, coming from Region 6, that great region, not to give you a more specific question on the Mount St. Helens salvage problem.

You answered a number of my questions as to what certain dollar amounts would produce in terms of salvage. If you cannot provide this information now I would like it for the record.

What are you capable of bringing out in salvage in this fiscal year, the next fiscal year, and the fiscal year after that? What is your capability and what will be the cost to the government in order to accomplish this?

Mr. PETERSON. All right. We can provide that.

[The information follows:]

CAPABILITY OF SALVAGING MOUNT ST. HELENS TIMBER

The capability of bringing out the Mount St. Helens salvage material and costs (1981) are estimated as follows:

$13.4 million (reappropriated funds from 1980) will result in 335 million board feet being removed by 1986 with a net return to Treasury of $60 million.

$26.5 million (includes reappropriated and $13.1 million reprogramming) will result in 400 million board feet being removed by 1984 and a net return to Treasury of $95 million.

$42.4 million (includes reappropriated, reprogramming and proposed supplemental of $15.9 million) will result in 449 million board feet being removed by 1983 and a net return to Treasury of $103 million. It also provides for an additional potential removal of 332 million board feet after 1983.

TREND OF RECREATION USE

Mr. AUCOIN. Turning to recreation use, you are requesting $117.4 million for recreation use, a decrease of $6.5 million and 93 positions.

Given the energy situation and the current economy, what changes have you observed in levels, types or locations of recreation use?

Mr. PETERSON. We have had an increase in recreation visits particularly within a couple hundred miles of population centers.

Mr. AUCOIN. We dealt with this earlier. You mentioned the Mount Hood National Forest. What was the figure there as to the increase?

Mr. PETERSON. As I recall, Mount Hood picked up about 20 percent additional use over the previous year. Some other forests have not been that dramatic, some being in the neighborhood of 10 or 15 percent.

There has been some reduction in use in very remote areas. As a result of this, we targeted our construction activities, with the limited amount of construction dollars we have, to areas closer to population centers in order to try to provide additional capacity.

We also observed a tendency for there not to be so much weekend use. People tend to stay for a week in many cases rather than run back and forth for a weekend, so it is causing considerable change.

Mr. AUCOIN. What are the budget impacts of those kinds of changes?

Mr. PETERSON. It is obvious some forests in the region have bigger impact than others. We have tried to reflect that in our allocations to the regions.

Another impact is that you get a higher level, a higher capacity of use during the week rather than just a weekend. In some cases, that helps because it tends to make use more uniform.

Mr. Housley can perhaps add to this.

Mr. HOUSLEY. The shifting patterns are the biggest problem we have in reallocating resources to deal with this. People are visiting fewer places but staying longer. This means we will be able to reduce the services at some areas where use is lower, and in fact probably close some facilities where demand warrants, and put what remains into the areas where use has increased.

RECREATION SERVICE LEVELS

Mr. AuCoin. What is the difference between what you call reduced service levels and full service levels? What does that mean?

Mr. Housley. In the case of reduced service we might do cleanup work less often. We might require that users take their garbage home with them. We might provide less interpretive services.

Mr. AuCoin. What is an interpretive service?

Mr. Housley. Provision of maps, guided tours, and self-guided tours and things of that sort for visitor enjoyment.

Mr. AuCoin. Is that what it means?

Mr. Housley. It is largely in that area.

Mr. AuCoin. Does that define what a reduced service level means?

Mr. Housley. Yes. We have a formal definition of that which basically means doing essential things but less often and in less detail.

Mr. AuCoin. What would it cost to maintain the full service level at all times?

Mr. Housley. I am not sure I have that figure. May we provide it?

Mr. AuCoin. Surely.

[The information follows:]

Full Service Costs

An additional 67 million dollars would be necessary to provide full service level management at all recreation sites and maintain appropriate support for other resource programs.

RECREATION SITE CLOSURES

Mr. AuCoin. How many recreation sites will have to be closed because of this decrease? That gets into the area we pursued this morning.

Mr. Peterson. I wish I could tell you the answer to that question. It depends on the cumulative impact of the Human Resources Program. We would hope we will be able to handle this primarily by reducing the season, but I would expect we would close a few facilities, a few of the high-cost facilities which have the lowest amount of use.

Mr. AuCoin. What does a few weeks mean?

Mr. Peterson. We have not made those decisions and I cannot tell you where they are. We would take the East side of Oregon, for example, where the use is low during the fall before the hunting season. We might close them the first of September and open them up again when the hunting season starts.

We will try to manage this in a way which does not impact the visitor any more than we have to.

Mr. AuCoin. You will take into consideration those areas which have had an explosion of visitor day use?

Mr. Peterson. Yes. I should mention to you that we spent about 50 cents a visitor day. If you notice, we have 220 million and 230 million visitors. With a budget of $117 million we spent about 50 cents per visitor day. That is much less than most of the other agencies spend on servicing a visitor day.

WILDERNESS AREA MANAGEMENT

Mr. AuCoin. What will be the impact of reducing capacity determinations and monitoring programs of wilderness areas, especially since 9.8 million additional acres were added in 1980?

Mr. Housley. This means less intensive management of wilderness, Mr. Chairman. We will just have fewer people in the field contacting and managing use of the wilderness.

Mr. AuCoin. What kinds of specific problems could that cause?

Mr. Housley. It can cause problems with concentrated use. Certain attractive spots in some wilderness, such as attractive lakes, may cause parties to concentrate on the shoreline. If we had wilderness rangers to work with those people and steer them to other locations, places away from the lake shore, we could prevent that impact on both visitor solitude and soil and water resources.

Mr. AuCoin. We are talking about damage to wilderness areas as a result of overuse?

Mr. Housley. There is that potential.

CULTURAL RESOURCES MANAGEMENT

Mr. AuCoin. The Reagan revision reduced the Carter request for cultural resources management by $3 million, and reduces acres to be inventoried from 3.3 million to 2.9 million. What is the total requirement?

Mr. Peterson. The total requirement is hard to state. Let me try to explain it this way. What resource inventory does is to try to inventory parts of the National Forest, particularly where activities are planned, to be sure about what cultural sites are there. Ideally you would do all 190 million acres of a national forest system lands.

We have not been able to do that. What we have been doing is inventorying in areas particularly where we have activities planned for the next several years.

Mr. AuCoin. If you take that as a definition what is the result?

Mr. Peterson. The budget we have is a bare minimum to carry out our action programs. It does not allow getting ahead for out years.

Mr. AuCoin. How long will it take you to complete that work?

Mr. Peterson. I think we are talking about 10 years at the rate we are going.

Mr. Housley. That is right.

Mr. AuCoin. Ten years counting this level of funding next year?

Mr. Peterson. Yes.

Mr. AuCoin. How much shorter a time span would there be if we were not dealing with this reduction?

Mr. Peterson. We originally were trying to do it in about five years.

Mr. AuCoin. So it doubles the length of time?

Mr. Peterson. I am told there is something different now. I am told it would take 40 years to do it at that reduced level.

Mr. AuCoin. You were planning 10 years.

Mr. Peterson. That should have been 40 years. The other level would have done it in about 10 years. That is where I got the two numbers mixed up.

Mr. AuCoin. This reduction will add 30 years to the length of time it will take?

Mr. Peterson. Yes.

Mr. AuCoin. Even if you get smarter and more efficient?

Mr. Peterson. If we continue at that level.

WILDLIFE AND FISH HABITAT SUPPORT

Mr. AuCoin. Your request for wildlife and fish habitat management is $44.2 million, a decrease of $539,000.

An increase of $3.2 million is included for wildlife and fisheries management and support. Can you be more specific as to what this increase will be used for?

Mr. Peterson. Yes. That increase is to be used in support of the timber program. You will recall we are going into roadless areas where we have not previously had detailed information on wildlife and fish. We will be doing land-disturbing activities, so we feel we need to increase support as we move into these previously unroaded areas.

WILDLIFE HABITAT IMPROVEMENT

Mr. AuCoin. The proposed reduction of $4.6 million in wildlife habitat improvement will result in a reduction in outputs from 1230 to 1191 thousand-acre equivalents, primarily in big game habitat improvement. What precisely is the activity involved that will be reduced here?

Mr. Peterson. This is direct wildlife habitat work, where we look at an area being used by wildlife and ask what are some of the limiting factors there which limit distribution of wildlife.

It may be lack of water. It might be lack of an opening which leaves food on the floor, so to speak. It may be a problem of any of those kinds of things, so there is a specific design made as to what improvement work needs to be done in this area. We will do less of that kind of direct wildlife habitat work.

Mr. Housley. Many of the same benefits can be accomplished through the timber sale program by careful planning of those activities. It is a shift in emphasis from direct habitat to support activities which can be partially offset by that extra input into the other activities.

Mr. AuCoin. Under the timber sales program?

Mr. Housley. Where openings are needed, where wildlife food planning is needed. This can be done in conjunction with timber sales.

Mr. AuCoin. Funded from that account? Is that what you are saying?

Mr. Housley. Yes. It is a shift in emphasis as to how we accomplish the work in many cases.

Mr. AuCoin. What will be the impact on timber sales?

Mr. Peterson. That is the support activity which is funded in this wildlife and fisheries habitat item.

Mr. AuCoin. The difference is picked up in the other account?

Mr. Peterson. There is a plus $3.2 million for support activities.

Mr. AuCoin. I did not notice that.

Mr. Peterson. By having a wildlife biologist participate in the planning for timber sales we might be able to create an opening, provide water and do other things which makes the habitat improvement much cheaper than if we did wildlife habitat work directly. What we are trying to do is to use other programs as much as we can to accomplish a common objective.

ENDANGERED PLANTS AND ANIMALS

Mr. AuCoin. How many endangered plant and animal habitat inventories do you have to do? What is your schedule for accomplishing those which remain?

Mr. Peterson. Basically we do endangered species work through a recovery team with the Department of the Interior which is species specific. In other words, if you have something like the woodpecker, an endangered species, you look at what you have in the way of research information. It tells you the kind of habitat you need for this bird to survive. It is not based on acreage but the particular species. That is the animal side of this.

As to plants it is primarily a problem of identifying plants to be sure you do not disturb them. That is part of land disturbance activity.

Mr. AuCoin. Don't you have to do inventories for each endangered plant and animal as well?

Mr. Peterson. We don't do a habitat inventory. We do a specific recovery plan for the specific species.

There is a special interagency plan, for example, for the grizzly bear which involves several million acres of habitat in Montana, Idaho and Wyoming. In cases like that you get into some large areas. You have to know the number of grizzlies, habitat requirements and research required. There you worry about an area-wide situation.

Mr. Housley. In connection with other resource and land management plans we would note the presence of endangered species, either plants or animals.

Mr. AuCoin. Would you repeat that?

Mr. Housley. In the course of resource and land management planning activities we would inventory the presence of endangered species and provide for that as part of that plan. In that sense there is an inventory activity.

Mr. Peterson. Inventory related to other activities. There are 75 threatened or endangered species of animals at present in the national forests. We have endangered species of one kind or another throughout the United States on national forest lands.

SOIL AND WATER ADMINISTRATION

Mr. AuCoin. Let us go to soil and water management. Your request for soil and water resource management is $40.4 million, a decrease of $807,000 and $1.4 million below the Carter budget.

An increase of $4.8 million is requested for soils and water administration, which is $390,000 less than the Carter budget.

I would like you to be more specific as to how the increase will be used.

Mr. Housley. The decrease from the Carter budget is made in anticipation of less technical support needed as a result of reduced road and recreation construction programs. There will be less support services needed on the part of the soil and water activity.

Mr. AuCoin. We are dealing here with an increase of $4.8 million. I want you to justify the $4.8 million increase.

Mr. Peterson. You are talking about the difference between the 1981 appropriation and the 1982 revision? That difference is only $2.7 million according to my numbers. The difference is between $37.4 and $40.4, some $3 million.

Mr. AuCoin. The figures we have from your justification shows an increase of $4.8 million over the 1982 base.

Mr. Peterson. There is one number which is a misprint. There is $4,800,000 additional for soil and water administration, a reduction of $6,300,000 in soil and water resource improvement, plus soil and water resource inventories of $768,000, so we have pluses and minuses. I was speaking of the gross total difference earlier.

Mr. AuCoin. My figure is correct, then, is it not?

Mr. Peterson. Yes, for the sub-item.

Mr. AuCoin. How will the increase be used? That is the question.

Mr. Peterson. This is support for moving into steeper terrain. This is a support item for the timber sale program.

Mr. AuCoin. Are you holding the timber sale program at the previous level?

Mr. Peterson. Yes.

Mr. AuCoin. Why do you need an increase?

Mr. Peterson. Difficult terrain. We need additional soil and water information as part of the land management planning which is supposed to be completed by 1985, so there are two factors involved in that. The reduction will be in specific improvement activities such as stabilizing an area which is eroding. We will defer that and concentrate on not creating additional problems.

SOIL AND WATER RESOURCE IMPROVEMENTS

Mr. AuCoin. The Reagan budget reduces soil and water resource improvements to $435,000, a reduction of $6.4 million. Why does this activity have lower priority than soil and water administration or inventories?

Mr. Peterson. As I recall, we had a one-time major increase in water resource inventories related to determining our water resource needs in the West as part of getting water rights. We had a major inventory going on as part of that. That was a one-time kind of thing.

Mr. AuCoin. Have you something further there?

Mr. Peterson. The only additional item is that I am assured that level of soil and water resource inventories in terms of number of acres involved is adequate to carry on our action programs.

Mr. AuCoin. Only one thousand acres will be treated, which, as you admit, makes your target of the year two thousand for treating all National Forest Systems Lands in declining watershed condition difficult to meet. What will be the impact of this delay? When will treatment be completed at this rate?

Mr. PETERSON. At this rate it would essentially never get completed.

Mr. AUCOIN. Never?

Mr. PETERSON. At least not in the foreseeable future. You also do develop a certain number of problems along the way.

What this represents is a concentration of not creating additional problems as you go into areas and do things. You do not create erosion problems in the first place. An ounce of prevention is worth a pound of cure. It does not allow us to go back and clean up problems created by man in the past except at a very low level.

Mr. AUCOIN. What would restoration of the $5.4 million do to that schedule?

Mr. PETERSON. We had 9.6 thousand acres at the previous level. It would do 8.6 thousand acres.

Mr. AUCOIN. At that rate how long would it take you to complete the treatment?

Mr. PETERSON. If we continued at that rate we would not complete the work by the year 2000. I think the previous rate of about 24,000 acres was the level it took to do it by the year 2000.

Mr. AUCOIN. If we continue at this rate are we reconciling ourselves to never dealing with the problem which exists?

Mr. PETERSON. At this level it is merely prevention and not curing.

Mr. AUCOIN. A total of 24.3 million acres will be inventoried at the proposed level of $14.4 million. How many acres will remain to be inventoried after 1982?

Mr. PETERSON. I am not sure of the figure. As I remember it we are trying to complete at a reconnaissance level by 1985 as far as planning is concerned, advance planning.

Mr. AUCOIN. To complete the inventory?

Mr. PETERSON. A reconnaissance level. The more detailed work is done in the action program.

Mr. AUCOIN. Once land has been identified as a candidate for intensive management, what then is done to it?

Mr. PETERSON. That is where we try to do more detailed soil surveys. We have a cooperative program with the Soil Conservation Service. To the extent we can we would like to do a fairly complete soil survey.

If we have an area of highly productive land we like to have management in it. In all fairness, we have not made dramatic progress. We have made some progress in getting the standard soil surveys.

If we need to intensively develop an area, as Mr. Housley says, we need to know where endangered species are present. We need to know what kind of wildlife is present in general to be sure that the plan reflects concern for wildlife.

We need to know what the cultural resources are there, so we need to get a multi-purpose inventory of an area of land.

We are doing that to the extent we can as part of the land management planning. However, it will be many years before we have on-site information, site specific information for all the national forests.

ENERGY RETROFIT OF FACILITIES

Mr. AuCoin. Let's go to Construction and Land Acquisition.

For fiscal year 1982, you are requesting $473,693,000 for construction and land acquisition. This is an increase of $95.1 million over 1981, but a decrease of $32 million from the original request. The Reagan request is equal to 74 percent of the RPA.

Twenty-two point eight million dollars is requested for construction of facilities. One point one million dollars of this request is to retrofit facilities for energy conservation. What are the total costs to complete this program? I would like to know whether you have developed a completion schedule.

Mr. Peterson. We developed a plan indicating retrofit needs over several years for all of our major facilities. I am not sure we have the number with us. We will provide it.

[The information follows:]

Energy Retrofit Cost and Schedule

Energy retrofit surveys which will provide more specific cost information on the retrofit actions that are cost-effective, are underway and scheduled for completion by December 31, 1981. It is estimated, based on information currently available, that total costs to complete the energy retrofit program will be approximately as follows:

Fire, administrative and other facilities	$50,000–$60,000
Research facilities	12,000– 15,000
Total costs (construction and land acquisition)	62,000– 75,000

We have a schedule for completion of the energy retrofit program. At the inception of the program in fiscal year 1980, we planned an even-flow retrofit program of approximately $6–$8 million per year, fiscal year 1981–1990. The National Energy Conservation Policy Act requires that cost-effective retrofit actions be completed on all existing federal facilities over 1,000 square feet by 1990.

Mr. AuCoin. Do you have an estimate of the cost savings as a result of doing this work?

Mr. Peterson. It is done on each building. It is an attempt to recover costs over about five years.

Mr. AuCoin. Do you have an estimate of what the cost savings might be over five years?

Mr. Peterson. Not with me. We will provide it.

[The information follows:]

Energy Cost Savings From Retrofit

We anticipate a substantial cost savings as a result of doing retrofit work. Savings from retrofit actions over the next 15–20 years is estimated to be $150–200 million, or approximately $2–2.50 for each $1.00 invested. The savings to investment ratio will be greater for the first 5 years of the retrofit construction program since the easier-to-accomplish and less expensive retrofit actions will be undertaken during this period. We can anticipate a savings of $25–30 million dollars over the first five years if the retrofit program is accomplished according to planned schedule.

Mr. AuCoin. We will need some estimate of the impact of the Reagan reductions. Can you do that now?

Mr. Peterson. Not now. We will supply it for the record.

[The information follows:]

IMPACT OF ADMINISTRATION REDUCTIONS ON RETROFIT PROGRAM

The proposed fiscal year 1982 budget level for energy retrofit which is $1.56 million in Fire, Administrative and Other Construction and $1.2 million in Research Construction will enable the Forest Service to complete the survey phase of the retrofit program and undertake a small amount of actual energy retrofit actions. However, the reduced fiscal year 1982 funding level will delay full implementation of the retrofit construction program for at least one fiscal year. This delay will result in the loss of part of the anticipated saving in energy costs, increase the total implementation costs due to inflation, and compress the planned completion schedule into a shorter, more difficult to to mange, timeframe.

CONSTRUCTION FOR FIRE, ADMINISTRATION, AND OTHER FACILITIES

Mr. AUCOIN. Fourteen point seven million dollars is requested for construction of fire administration and other purposes. What is your backlog of projects under this activity and at this level when will the backlog be eliminated?

Mr. PETERSON. Mr. Chairman, the problem we have in defining a backlog here is that more than half of our administrative and fire and other facilities are either of CCC vintage, World War II or shortly thereafter. It depends on how quickly you would propose to rebuild them.

This level would provide for replacement of a few of the facilities which have clearly outlived their usability and we have safety and other problems with it.

We defined something like $100 million worth of work that is urgently needed in the next several years.

Mr. AUCOIN. What is that figure?

Mr. PETERSON. Somewhere around $100 million just to replace the most urgent ones.

Mr. AUCOIN. When was that estimate made?

Mr. PETERSON. About two years ago, as I recall.

Mr. AUCOIN. 1979 dollar estimates?

Mr. PETERSON. Yes. If we really attempted to replace a lot of those CCC vintage and World War II facilities within the next three years, it would be a great number. We can give you the best estimate we have.

Mr. AUCOIN. Why don't you provide that.

[The information follows:]

ESTIMATE OF BACKLOG OF CONSTRUCTION FOR FIRE, ADMINISTRATIVE, AND OTHER PURPOSES

It would require an estimated half billion dollars to replace, or rehabilitate to an acceptable standard, these facilities and their associated utility systems. We feel that a ten-year construction program of $50-$60 million per year would be a preferable way to handle the backlog and provide the necessary facilities for new expanding Forest Service programs.

At the proposed fiscal year 1982 budget level for construction there would be little, if any, reduction in the backlog. Increasing age, new regulatory and program requirements will continue to build upon the backlog as fast as the most urgent construction needs are satisfied at the proposed budget levels.

PRIORITY OF FACILITIES CONSTRUCTION

Mr. AUCOIN. Do you have a priority system for determining what order you will tackle these projects?

Mr. PETERSON. Yes. The first priority is health and safety items. Examples of this are wiring which does not meet code requirements or is a definite safety hazard, a water system where tests indicate it is not potable, or a facility which simply is so outmoded it is very inefficient to do anything.

The next priority is where we need new facilities and at the present time we either do not have facilities there and no private facilities are available.

Much of what is in this budget, most of what was in our original budget for 1981, the current year, was related to facilities in Alaska. We have now put most of them under the Tongass Timber Supply Fund. We are talking about remote areas where there is no opportunity to get private facilities. We try to provide some facility in these cases.

Mr. AuCoin. I would like you to provide for the record the reasons for eliminating or reducing the projects which make up the net Reagan reduction of $1 million.

Mr. Peterson. We will do that.

[The information follows:]

Reasons for Eliminating Facility Construction Projects

Constrained budget level, coupled with resource program priorities, force the limitation of expenditures for construction of capital facilities. The revised budget estimate of $14,684,000 represents a decrease of $1,000,000 from the previous request. The reduction was applied to projects which will have the least immediate impact on our ability to accomplish resource outputs, such as the energy retrofit program.

RECREATION CONSTRUCTION

Mr. AuCoin. $6.6 million is requested for recreation construction. Can you tell us what the backlog of planned projects is under this activity?

Mr. Peterson. We have not defined the total backlog. The GAO report identified about $110 million of health and safety-related kinds of facility needs, which is just a portion of the total. Again, we are dealing with a large number of CCC vintage facilities so it is probably in the neighborhood of two or three times that much for the total.

Mr. AuCoin. Two or three times the $6.6 million?

Mr. Peterson. Two or three times the $109 million.

Mr. AuCoin. Would you provide for the record the reasons for selecting the projects which make up the $1 million Reagan reduction? Also, can you provide for the record the reasons for adding certain other projects which were not included in the Carter budget?

Mr. Peterson. Yes.

[The information follows:]

Recreation Construction Project Reduction

Recreation construction projects remaining in the fiscal year 1982 program include provisions to correct health and safety deficiencies of the type identified in GAO's recent report. Additionally some funding will complete projects initiated with prior years' appropriations. The projects eliminated to make up the $1,000,000 did not specifically address health and safety deficiencies.

Recreation Construction Project Revisions

The addition of projects not included in the Carter budget reflects a reanalysis of several projects in the Northeastern Region. Council Bluff is the Region's number one priority. Fiscal year 1982 funds will be used to finish cleaning the flood basin area and to complete a service bridge to the dam. Since the dam is filling these items are crucial funding needs.

Luna White Deer is the Region's highest priority rehabilitation project. Funds will be used to correct health and safety deficiencies in the campground. Johnson Creek is a partially completed facility which fiscal year 1982 funds will bring to completion.

Mr. AuCoin. Will the failure to provide these projects result in any closures or reductions in the recreation visitor days? If so, provide these details for the record.

Is the answer yes?

Mr. Peterson. The answer is probably yes. An on-the-ground manager, if he has health and safety problems, and cannot correct them through maintenance, may have to close it. Our policy is either to correct the health and safety facilities or close the facility.

I cannot tell you for sure where we may run into a problem which is not correctable within the dollars we have. We do recurring sampling of water.

DILWORTH PROPERTY

Mr. AuCoin. Are you familiar with the Cascade Head research area and reprogramming Dilworth property in Oregon?

Mr. Peterson. Yes, I am. You are talking about a reprogramming request in process.

Mr. AuCoin. I understand there is a reprogramming request of $520,000.

Mr. Peterson. I think that is right.

Mr. AuCoin. Is that moving forward?

Mr. Peterson. The information I have here indicates we have $102,000 available in that account, so it would have to be a reprogramming situation.

Mr. Leisz. That is correct. We had reprogramming action moving along.

Mr. AuCoin. What is the status of that request?

Mr. Leisz. I do not recall. We will have to check on that for you.

Mr. Peterson. I think unless that moved to the point of being considered an obligation it would be part of the current request to defer expenditures.

Mr. Leisz. I think it has.

Mr. AuCoin. Is part of the request to defer expenditures?

Mr. Peterson. If it had not reached the stage of obligation. We had better provide that information.

[The information follows:]

Status of Dilworth Purchase

The reprograming request for the Dilworth purchase (Cascade Head Scenic Research Area) has been submitted to the Office of Management and Budget. No action has been taken because the Department of the Interior is withholding its recommendation until a full assessment is made of the affect the recommended recision will have on available funds.

Mr. AuCoin. It is my information that that is the case. However, is not the Forest Service mandated by the enabling legislation on the Cascade Head to initiate condemnation proceedings if other arrangements cannot be worked out?

Mr. Peterson. Yes. That feature is in several of the areas we are managing, like the Sawtooth recreation area. Those are things we cannot really estimate in advance because they are specific to the individuals involved.

Mr. AuCoin. How many more of these cases are there?

Mr. Peterson. I don't know.

Mr. AuCoin. Can you give us information on it?

Mr. Peterson. We can give you our best estimate. How many will develop in the next year or so I don't know.

Mr. AuCoin. If you are mandated by the legislation which I specifically refer to in the Cascade Head project to initiate condemnation proceedings, you will in fact have no recourse but to move forward if the reprogramming request is not forthcoming. Is that not so?

Mr. Peterson. It will present a dilemmna for us. I don't know what the answer is if we cannot perform under the provision that is in the law.

I think we will at least make a case that was a Federal commitment.

Mr. AuCoin. In doing that, does that for OMB purposes untangle the reprogramming request?

Mr. Peterson. Not necessarily because there could be a request to remove that provision. There are quite a lot of those around.

Mr. AuCoin. When will we know the answer to that?

Mr. Peterson. I think we can let you know tomorrow as to the specific one you mentioned. It is in a reprogramming request.

Mr. AuCoin. I am asking now about the potential for legislation to amend the statute.

Mr. Peterson. I am mentioning that as one of the possibilities that might be looked at if there is not money available to follow through on the original commitment. I am not really predicting that will happen. I mention that as an option.

Mr. AuCoin. In the case I am citing there is a reprogramming request of $520,000 and an additional appropriation for fiscal 1982 of $935,000 necessary to complete this deal. That is a total of around $1.4 million.

If we do not go in that direction and the condemnation action is invoked, it is my understanding that the cost in all likelihood will be a great deal more than $1.4 million.

Mr. Peterson. It might well be. We do have that information on our submittal to the Department of the Interior as part of the consideration for 1982. There has been no distribution of that $45 million which is in the President's budget in 1982 as to where it is going.

Mr. AuCoin. Say that again.

Mr. Peterson. There is $45 million in the President's budget for 1982 in Land and Water Conservation Funds. There have been no decisions as to how that $45 million will be spent among all of the agencies.

Whether we would get money for this one I do not know. We would point out that there is a statutory requirement there.

Mr. AuCoin. The one I referred to?

Mr. Peterson. Yes.

Mr. AuCoin. One final question on this. If you do not have the information now it would be useful to have it for the record. I want the number of cases where you know there is a mandate for condemnation proceedings of this kind.

Mr. Peterson. All right.

Mr. AuCoin. Provide the potential costs to the government if there are no funds in the land and water conservation fund and condemnation procedure is mandated. We need that information.

Mr. Peterson. We will do our best to give you that information.

[The information follows:]

Condemnation Costs

The moratorium on L&WCF dollars results in four categories of increased cost for the United States to handle condemnations. They are: (1) escalation of land prices due to deferring the initiation of condemnation proceeding; (2) interest accruals on condemnations already filed; (3) cost of reappraisals and other administrative costs; and (4) possible inverse condemnations[1] in areas where we are mandated to acquire properties within a certain period.

The following is a breakdown of these costs by areas:

R-1	
Wild and scenic rivers	$432,000
R-4	
Sawtooth NRS (deficiencies, interest)	2,634,600
Sawtooth NRS (possible inverse condemnations)	2,500,000
M. F. Salmon WSR (interest)	163,330
M. F. Salmon WSR (possible inverse condemnations)	2,500,000
R-6	
Rogue WSR	1,320,500
Cascade Head SRA	1,642,000
Hells Canyon NRA	842,500
Oregon Dunes NRA	1,086,000
Alpine Lakes	3,598,500
R-8	
Composites—4 cases	34,000
Appalachian Trail	141,500
R-9	
BWCAW	282,000
NRA's	63,200
WSR's	284,700
Total	$17,524,830

Mr. Peterson. The other large one is Alpine Lakes where the legislation is a little bit different. It provides that if we do not accomplish that acquisition within a certain length of time the parties can go to Federal Court and bring an inverse condemnation case. That is around $20 million involved.

FOREST ROAD CONSTRUCTION

Mr. AuCoin. $203.6 million is requested for forest road construction. An additional amount of $242.5 million is estimated for timber-purchaser road construction, for road construction a total of $446.2 million. This is $29 million less than included in the Carter budget. How can the reduction in road construction not have an impact on the planned timber sales level of 11.9 billion board feet?

Mr. Peterson. I sent a letter to Regional Foresters suggesting kinds of action they might consider taking to reduce road costs. Some are listed in the attachment to that memorandum.

We would look at reconstruction proposed to be sure we need to reconstruct. We can use an existing road, even though it is not an ideal road rather than reconstruct. In some cases we will be doing less cleanup along the road than otherwise, particularly if it is in an area where there is a fuel wood demand.

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[1] When landowner believes U.S. Government has wrongly taken his land and files an inverse condemnation case against the United States.

We will be reviewing standards carefully to be sure they are all justified. We will be looking at survey standards, the way we are doing survey work. We will be looking at overhead accounts.

In other words, it is a full court press to try to reduce expenditures. In essence we will ask the Regional Foresters to reduce by 10 percent.

This will not be easy to do but I think it is feasible.

Mr. AuCoin. Will it have impact on sales, preparation and harvest capabilities in 1983 and beyond?

Mr. Peterson. We think it will not.

Mr. AuCoin. That is your expectation?

Mr. Peterson. Yes. We explained all of these problems earlier. I am not saying we may not have problems at this time next year with the 10 percent fund or purchaser options and that type of thing, but at least it is our feeling and our best judgment that we could save about $17 million in forest road and trail appropriated funds and $12 million in purchaser construction.

Mr. Leisz. There will be impacts in this because we know failure to reconstruct and build roads to higher standards will result in higher maintenance costs. This is a tradeoff.

Mr. AuCoin. That does not show up in this budget, however, does it?

Mr. Leisz. That is right.

Mr. AuCoin. It will show up later.

Mr. Leisz. In higher operating costs. Also on that list you will find we are suggesting administering traffic, so in some cases there will be restrictions of traffic on those roads during hauling periods. In some areas that will decrease public use of those under new construction.

Mr. AuCoin. There are impacts.

Mr. Peterson. Yes.

Mr. AuCoin. Not positive impacts but negative impacts.

Mr. Peterson. Impacts which seem to us to be less of a problem than other impacts of reducing the budget $29 million somewhere else. In other words, if there is a road that will have timber hauled on it and it means you have to reconstruct it to a higher standard to allow recreational use on it simultaneously, you might close it to recreational traffic for a period during the hauling time.

That inconveniences people. You will probably get letters from constituents who don't like the closing of the road. Still, that is more manageable than the other things you have to do.

ROAD CONSTRUCTION NEEDS AND THE TIMBER SALES LEVEL

Mr. AuCoin. What happens if the timber sales level goes above 11.9 billion board feet before 1982?

Mr. Peterson. If the timber sale program will go significantly above 11.9, it means we have to put additional road money in 1982, 1983 and 1984 to reach that level. You cannot wait until the year you want to increase the sale program to increase the road program.

RECOMMENDED PROGRAM FOR TIMBER SALES

The Resources Planning Act long-term program goes from 11.9 to 12.5 by 1985. It shows what is necessary to do that in terms of road construction.

Mr. AuCoin. How does this compare to what that calls for in the fiscal year we are dealing with?

Mr. Peterson. The RPA would have called for about $323 million in forest road construction and 285 million in purchaser construction.

Mr. AuCoin. For a total of what?

Mr. Peterson. $609 million, exclusive of Alaska, to move toward that 12.5 billion figure in 1985.

Mr. AuCoin. $609 million compared to the total here of $446.2 million; is that right?

Mr. Peterson. That is right.

Mr. AuCoin. Substantially less?

Mr. Peterson. Substantially more.

Mr. AuCoin. You are calling for substantially less.

Mr. Peterson. Excuse me, yes.

Mr. AuCoin. How will you be able to meet that goal in 1985?

Mr. Peterson. We will have some difficulty meeting that goal by 1985. This budget does not anticipate moving to 12.5. This anticipates the road program to maintain the timber program at 11.9.

Mr. AuCoin. So this locks us into an 11.9 schedule?

Mr. Peterson. It does not lock us in but additional money has to be available in 1983 and 1984.

Mr. AuCoin. If we follow this request we are buying a program of 11.9 in those out years.

Mr. Peterson. Yes.

REDUCTION IN ROAD FUNDS

Mr. AuCoin. Going back to the other costs which would be incurred, if these "savings" we are talking about here result in greater other costs and revenue losses, how do we make up for those?

Mr. Peterson. I don't think they result in revenue losses. They will result in inconveniences because of areas that will not be open to the public. They will result in additional hauling costs which will result in some revenue loss in terms of timber appraisals. Our objective here, though, is to try to find savings that will not show up in decreased receipts as much as we can. However, there will be some. As Mr. Leisz says, if you agree to use a road without reconstruction, and you therefore incur higher hauling costs, that will show up in the appraisal which results in less income from timber.

Mr. AuCoin. You have no way to figure that out?

Mr. Peterson. Not until Regional Foresters go through and make an analysis.

RECREATION ROAD CONSTRUCTION

Mr. AuCoin. What was your original request for recreation roads and what is the current level proposed?

Mr. PETERSON. I can tell you what it was for roads but I do not have a breakdown for recreation roads. I will have to provide that. The numbers I gave were for all roads.

Mr. AUCOIN. You will provide that?

Mr. PETERSON. Yes.

[The information follows:]

REQUEST FOR RECREATION ROADS

The original program of $299,340,000 Forest road construction included $7,800,000 for recreation roads. The revised program of $282,340,000 included $2,800,000 for recreation roads.

Mr. AUCOIN. We need to know what the backlog is in recreation construction as well.

Mr. PETERSON. We will provide it, sir.

[The information follows:]

RECREATION CONSTRUCTION BACKLOG

Recreation use construction consists of both rehabilitation (reconstruction) of existing areas and construction of new areas. The total accumulation of rehabilitation needs (sometimes referred to as backlog) is estimated to be $380,000,000 at this time.

Several thousand of the existing recreation sites are in need of rehabilitation. The scope of needed rehabilitation varies from only a few hundred dollars to many thousands of dollars per site. A complete listing of sites is kept current at Regional and Forest levels but is not presently available at the National level. Each year Regional Foresters select the highest priority projects from this listing of sites for inclusion in the annual budget.

LEVEL OF TRAIL CONSTRUCTION

Mr. AUCOIN. You are requesting $4.7 million for trail construction, which is only 24 percent of the RPA. Tell us why this activity has such a low priority.

Mr. PETERSON. Our trail system is widely distributed throughout the forests. Much of it is quite old. We had hoped to combine this budget item with the Human Resource Program to do trail reconstruction. That has become the basic way of doing trail construction.

Faced with a very short Federal money supply this is an area which can be deferred with less impact in some other activities. It means the work will remain to be done.

Mr. AUCOIN. What is your understanding of the benefits from this activity?

Mr. PETERSON. Many of these trails are used by outfitters, guides and general recreationists getting into the back country. In some places trails are not available, trails they otherwise might use. Some trails get so bad they have to be closed. Nothing happens that is very dramatic in one or two years. It is a matter which over time, unless you spend enough money, trails will deteriorate to the point where——

Mr. AUCOIN. Closure will be required?

Mr. PETERSON. Some will have to be closed; that is right.

Mr. AUCOIN. Do you have an estimate of the total demand or requirement for trails in National Forest System lands?

Mr. PETERSON. Yes. We are now maintaining something like 94,000 miles of trails.

Mr. Housley. There are additional construction needs as reflected in the RPA figures.

Mr. AuCoin. What is that figure?

Mr. Peterson. We expected the trails system to grow to something like 100,000 miles from the 94,000 we are maintaining at the present time.

Mr. AuCoin. How much over 100,000?

Mr. Peterson. I do not have the numbers with me.

Mr. AuCoin. Give us that for the record.

[The information follows:]

RPA Trail Construction Levels

The recommended RPA program indicated a trail construction level of 2,331 miles in 1982.

COST OF TRAIL CONSTRUCTION

Mr. AuCoin. What is the average cost per mile for trail construction?

Mr. Peterson. It runs from maybe $1,500 a mile, if you just have to mark and indicate where it is going, to as high as 10, 15 or 20 thousand dollars if you are going through rugged country where you have to do a lot of blasting.

Mr. AuCoin. What is the average figure? Do you have an average figure?

Mr. Peterson. The only average I can give you here is that we propose to build 40 miles this year for $3,500,000. That is about $10,000 a mile. We will provide additional information for the record.

[The information follows:]

Trail Construction Costs

The average cost of trail construction and reconstruction is $7,900 per mile and ranges from $1,900 per mile for light reconstruction to over $22,000 per mile for new construction in difficult terrain. The costs do not reflect major investments such as bridges.

Trail use for all categories in 1980 was approximately 13 million recreation visitor days. Demand for trail related activities is anticipated to increase to 13.4 million visitor days by 1982.

Mr. AuCoin. Do you have any reason to believe that is not typical?

Mr. Peterson. No; I think it is typical. It is mostly all handwork and it is in rough terrane.

LAND ACQUISITION—WEEKS ACT

Mr. AuCoin. You are requesting no funds in 1982 for land acquisition. What is your estimate of fiscal year 1981 carryover funds that will be available to you in fiscal year 1982?

Mr. Peterson. Essentially we do not intend to take carry-over funds from 1981.

Mr. AuCoin. None?

Mr. Peterson. Not of any consequence, unless there is a small acquisition which falls through at the last minute.

ROAD CONSTRUCTION ACCOUNTS

Mr. AuCoin. There is one additional question before we adjourn for the day. It comes back to the problem you documented in the hearing in estimating receipts and the problem of roads and the incredible difficulty we have right now, and how difficult it is to make a miscalculation and ending up causing a real problem for you and everyone else. There must be some way where we can minimize this problem of miscalculation.

I would like to have you speak to that before we close the hearing and close that part of the discussion. Do you not have by now some suggestions about ways we can avoid this kind of miscalculation?

Mr. Peterson. Let me mention three possibilities which would warrant exploration. One would be to appropriate a total amount of road construction funds, like *x* dollars, and say that includes whatever comes in from the 10 percent fund.

Mr. AuCoin. I see.

Mr. Peterson. Treasury would get the 10 percent funds, know how much that was, and they would provide the rest. That means the Committee, then, does not make it dependent on the 10 percent fund. That is one possibility. That might have some technical problems I am not aware of.

Another possibility would be to appropriate the estimate of the 10 percent fund for one fiscal year and then move on and use the receipts a year behind you so that you would know what those are by then.

Mr. AuCoin. If we were to do that now what is the magnitude of figures we would be dealing with?

Mr. Peterson. You would have to appropriate the estimated amount of the 10 percent fund for 1982.

Mr. AuCoin. Are we talking about over $78 million?

Mr. Peterson. Yes. That would not cost the Treasury that much money even though technically it might show up on your books. If that amount of money comes into the Treasury it might be a straight offset.

Anyway, those are two different ways it seems to me it could be handled without costing any more money.

Mr. AuCoin. In what fiscal year would that offset occur? If we are going to do that in fiscal 1982 when would it apply?

Mr. Peterson. If we did it in 1982, then the receipts that come in during 1981, instead of being used in 1982 would be used in 1983.

Mr. AuCoin. I see.

Mr. Peterson. You have to do it just that one time.

Mr. Sherman. There would be a one-year lag?

Mr. Peterson. Yes. A one-year lag.

Inasmuch as I am giving you suggestions without a great deal of thought I would want our counsel to consult with your staff over whether my first suggestion of just setting a total amount is legal.

A third possibility would be simply to repeal the 10 percent fund provision and then work with a fixed appropriated amount.

Mr. AuCoin. Of the three, based on your view now, which do you think has the most potential and the best alternative?

Mr. PETERSON. The easiest one to work would be for Congress to appropriate a total amount and say that that includes the amount which comes from the 10 percent fund.

Mr. AUCOIN. Appropriate a total amount for roads?

Mr. PETERSON. Yes. Then the 10 percent funds would still come in but go into miscellaneous receipts.

That means everybody knows up front the size of the program, and it means our field wuld know the size of the program.

Mr. AUCOIN. It could eliminate a great deal of grief.

Mr. PETERSON. It would save the government money in the long pull because you would not be in the position of having to come back as we are now on a crisis basis.

Mr. AUCOIN. I am glad you mentioned that. I am glad we took the time to raise that. I would like to pursue it in the future.

The hearing will be adjourned and the remaining questions will be submitted to you for response for the purpose of the record.

Mr. PETERSON. Thank you, Mr. Chairman.

Mr. AUCOIN. Thank you.

Mr. PETERSON. You have been very kind in your questioning and we appreciate it.

Mr. AUCOIN. I appreciate your responsiveness.

I have some additional questions that I would like you to answer for the record. Mr. McDade and Mr. Clausen have some questions also.

[The questions and answers follow:]

QUESTIONS SUBMITTED BY CONGRESSMAN JOSEPH M. McDADE

Question: Can you display all timber cut in 1970, show top 15 States in U.S. by volume and percent of U.S.? Also, show volume of National Forest timber cut, percent of State and percent of U.S.? Show some for 1980 and explain changes or shifts that occurred in decade.

Answer: Annual removals in thousand cubic feet for all ownerships are shown below for 1970 and 1976 for the top 15 States. We do not have data for 1980.

REMOVAL OF GROWING STOCK, ALL SPECIES, IN THOUSAND CUBIC FEET

STATE	1970 Rank	1970 Volume	1970 Percent of Total	1976 Rank	1976 Volume	1976 Percent of Total
Oregon	1	1,556,000	11.09	1	1,872,139	12.98
Washington	2	1,536,070	10.95	2	1,335,834	9.26
Georgia	3	927,939	8.61	3	1,041,109	7.22
California	4	927,000	6.61	4	957,784	6.64
Alabama	5	807,183	5.75	5	830,084	5.75
Mississippi	6	745,962	5.32	6	733,487	5.08
Louisiana	7	721,637	5.14	8	617,423	4.28
North Carolina	8	690,716	4.92	7	666,005	4.62
Arkansas	9	620,108	4.42	9	601,234	4.17
Texas	10	461,162	3.29	12	479,351	3.32
South Carolina	11	448,977	3.20	10	502,203	3.48
Virginia	12	442,907	3.16	11	495,998	3.44
Maine	13	408,700	2.91	13	446,137	3.09
Idaho	14	357,256	2.55	14	394,833	2.74
Florida	15	347,900	2.48	16	326,010	2.26
Wisconsin	17	308,983	2.20	15	357,100	2.48
Pennsylvania		231,755	1.65		245,210	1.70
Ohio		113,120	0.81		109,693	0.76
Illinois		91,096	0.65		89,200	0.62
Maryland		75,572	0.54		63,475	0.44
National Total		14,032,808			14,425,230	

National Forest timber cut in thousand board feet in the top 15 States (NF only) are shown below. Comparisons with timber cut on other ownerships are not available.

VOLUME OF TIMBER CUT ON NATIONAL FOREST LAND IN THOUSAND BOARD FEET

	1970			1980		
STATE	Rank	Volume	Percent of Total	Rank	Volume	Percent of Total
Oregon	1	3,223,266	27.96	1	2,511,401	27.45
California	2	2,047,090	17.76	2	1,461,090	15.97
Washington	3	1,650,690	14.32	3	1,121,058	12.25
Idaho	4	997,604	8.65	4	637,907	6.97
Montana	5	731,920	6.35	6	420,487	4.60
Alaska	6	496,100	4.30	5	451,140	4.93
Arizona	7	270,330	2.35	8	263,137	2.88
Colorado	8	190,846	1.66	13	111,135	1.21
Mississippi	9	163,335	1.42	7	307,245	3.36
New Mexico	10	155,575	1.35	16	102,257	1.12
Michigan	11	147,248	1.28	10	169,427	1.85
Minnesota	12	136,217	1.18	12	113,262	1.24
Wyoming	13	117,259	1.02	20	77,819	0.85
Arkansas	14	116,761	1.01	9	235,803	2.58
South Carolina	15	104,944	0.91	17	98,531	1.08
Louisiana	18	84,502	0.73	11	144,328	1.58
Florida	16	95,474	0.83	14	110,791	1.21
Wisconsin	17	85,500	0.74	15	109,643	1.20
Texas		65,069	0.56		63,507	0.69
Pennsylvania		37,144	0.32		45,021	0.49
Illinois		7,845	0.07		7,104	0.08
Ohio		4,994	0.04		11,264	0.12
National Total		11,526,725			9,147,851	

The shifts that have taken place reflect (1) the loss of commercial forest land in the West to wilderness or uses other than timber production and (2) the coming-of-age of the young forests in the South and the East.

Question: Can you prepare two sets of tables, one for softwoods and one for hardwoods, showing top 15 States, on the basis of national forest timber sold in 1970 plus any State with members on this subcommittee? Also, separate both Oregon and Washington into West and East. Provide data for 1970, 1975, and 1980.

Answer: We do not keep this information in the format requested. We will have to ask the Regions to assemble and compile this data. It will take several weeks to obtain the data for various years.

RARE II

Question: For fiscal year 1981, what percent of allowable cut planned in each State under:

a) budget request.

b) budget as enacted by Congress.

Answer: We do not keep budget data by state or national forests in the Washington Office. In order to construct the data as requested, the field offices will have to assemble the information from their records. Since this is a time consuming process, we could not acquire the data within a reasonable time frame. If the Committee still wishes to be furnished this information at some later date, action will be taken to request field units to prepare.

Question: Can you provide data for National Forest, other public, industry, and private-nonindustry, if available and applicable to the following?

1. Commercial forest acreage.
2. Total timber volume in board feet.
3. Allowable cut level.
4. Timber sold and percent of allowable cut sold.
5. Average price bid per MBF.
6. Timber cut.
7. Average price paid per MBF.
8. Percent of timber cut in State or area.
9. Timber under contract.

Explain the trends and changes to the extent possible in the private and public sector.

Answer: Data is provided for 1970 and 1977 (or 1976) for all Forest ownerships as published in the Forest Statistics of the United States, 1977. No later data is available. Data for other than National Forest, ownership, is not available for allowable cut, prices, and timber under contract. The available data follows:

ITEM AND YEAR	TOTAL	NATIONAL FOREST	OTHER PUBLIC	FOREST INDUSTRY	FARM & OTHER PRIVATE
COMMERCIAL TIMBERLAND (in thousand acres)					
1970	500,355	94,651	48,322	66,980	290,392
1977	487,726	89,007	47,595	67,976	283,148
NET VOLUME OF SAWTIMBER (in million board feet-International 1/4" log rule)					
1970	2,483,148	1,057,129	262,779	401,378	761,862
1977	2,568,682	1,054,948	286,034	387,930	839,770
ANNUAL REMOVALS OF SAWTIMBER (in million board feet-International 1/4" log rule)					
1970	62,532	13,409	4,921	18,472	25,730
1976	66,177	12,519	5,781	21,343	26,534
PERCENT OF TOTAL REMOVALS BY OWNERSHIP					
1970		21%	8%	30%	41%
1976		19%	9%	32%	40%

NATIONAL FOREST DATA FOR FY 1980

--Potential Yield - billion board feet, scribner log rule	15.2
--Timber sold - billion board feet scribner log rule	11.4
--Percent of potential yield sold	75%
--Average price bid per MBF	$172.71
--Timber harvested - billion board feet, scribner log rule	9.1
--Average price at harvest per MBF	$79.83
--Timber volume under contract but not cut (excluding long term sales) in billion board feet, scribner log rule	30.5

Commercial timberland acreage decreased as public lands were withdrawn for dedication as wilderness or other specific nontimber uses and private land changed to farmland or urban areas. The withdrawal of National Forest timberland limited timber removals which shifted the harvest emphasis to other ownerships.

RARE II

Question : For the top 15 states in National Forest timber sales show the (following information:)

State, Commercial forest land, total timber volume, hardwood timber volume, softwood timber volume, programed harvest. In addition show this samé information by state for the Roadless Area Review Evaluation phase II (RARE II) for each state:

Answer : The information requested is contained in the enclosed table.

	NATIONAL FORESTS					RARE II AREAS				
	Commercial Forest Land	Total Timber Volume	Hardwood Timber Volume	Softwood Timber Volume	Program Harvest	Commercial Forest Land	Total Timber Volume	Hardwood Timber Volume	Softwood Timber Volume	Programed Harvest
	(Thousands Acres)	(Millions of bd. ft.)	(Millions of bd. ft.)	(Millions of bd.ft.)	(Millions of bd. ft.)	(Thousands Acres)	(Millions of bd. ft.)	(Millions of bd.ft.)	(Millions of bd.ft.)	(Millions of bd.ft.
Oregon	11,376	206,572	-----	206,572	3,523	1,895	37,538	------	37,538	447
California	8,000	150,298	10	150,288	1,900	1,662	31,433	1	31,483	275
Washington	5,624	99,151	-----	99,151	1,560	1,408	30,373	------	30,373	326
Idaho	10,199	94,521	92	94,429	883	4,198	64,861	5	64,856	247
Montana	8,306	79,378	-----	49,378	643	3,138	13,152	------	13,152	170
Mississippi	1,073	10,394	2,870	7,524	214	8	39	6	33	1
Arizona	2,557	14,147	101	14,046	290	295	648	43	562	8
Alaska	3,845	82,451	315	82,136	530	4,437	100,973	24	100,949	487
Arkansas	2,322	7,078	1,887	5,191	220	175	268	84	184	4
Michigan	2,405	10,118	6,344	3,774	189	65	241	92	150	1
Louisiana	553	2,913	411	2,502	148	PL 96-550 Settled the RARE II Issue				
Minnesota	1,755	13,057	7,637	5,420	121	63	80	47	33	3
New Mexico	2,846	10,710	440	10,271	134	PL 96-550 Settled the RARE II Issue				
Colorado	7,185	10,266	2,587	37,679	175	PL 96-560 Settled the RARE II Issue				
South Carolina	556	3,636	727	2,908	117	23	162	75	37	7

Question: What effect, if any, has RARE II had on each budget request since 1975 including this year in each of the above States?

Answer: Forest Service budgeting is not accomplished on a State-by-State basis. Generally, RARE II has not had an overall effect on Forest Service budgets during the past 7 years. The program was completed without additional funding by shifting emphasis and priority within the Agency. Other budget requests or shifts in funding items are the result of management direction and are not directly attributable to RARE II.

SPECULATIVE BIDDING

Question: Based on the best information, which National Forest in the West and National Forest in the South recorded the highest average bid prices in 1980. Show the following for each Forest.

1. Number of sales.

2. Volume sold.

3. Appraised price in total dollars and per M.

4. Bid price in total dollars and per M.

5a. For al sales appraised at over $10,000 show the average number of bidders per sale.

b. List all bidders by name on the Forest participating in bidding, number of sales bid on, volume bid on, volume secured and price bid.

Answer: The following tables display the information requested:

SALE SOLD - THIRD QUARTER 1980
(Period -- January 1 - September 30, 1980)

REGION	FOREST	NO. SALES	VOLUME (MBF)	APP. NET RATE (MBF)	HIGH BID RATE (MBF)
6 (Westside)	Siskiyou	19	78,475	$75.11	$556.82

AVERAGE NUMBER BIDDERS PER SALE: 3.7

	NUMBER OF SALES (BID)	(Successful)	VOLUME BID ON MBF	VOLUME AWARDED MBF	TOTAL VALUE AWARDED
South Coast Lumber Co.	12	9	58,805	39,920	$24,173,754
Big Flat Timber Co.	10	4	62,970	26,000	14,714,129
Aracata Lumber Co.	11	-	57,255	---	---
Reservation Ranch	6	1	27,355	1,855	162,047
Champion International	4	-	19,820	---	---
Miller Redwood Co.	1	-	6,810	---	---
Mountain Fir Lumber Co.	2	-	7,250	---	---
Spalding & Son, Inc.	1	-	3,470	---	---
Robert Dollar Co.	7	1	23,140	3,780	1,365,896
Rough & Ready Timber Co.	6	3	22,440	6,220	3,049,304
Double Dee Lumber Co.	1	-	3,780	---	---
Coos Head Lumber Co.	2	-	7,210	---	---
3 Sons Loggers, Inc.	1	-	1,550	---	---
Ellis Logging, Inc.	1	-	430	---	---
Webco Lumber, Inc.	3	-	6,420	---	---
Medco Timber Co.	1	1	700	700	23,410
Boise Cascade Corp.	1	-	700	---	---

SALE SOLD - THIRD QUARTER 1980

(Period -- January 1 - September 30, 1980)

REGION	FOREST	NO. SALES	VOLUME (MBF)	APP. NET RATE (MBF)	HIGH BID RATE (MBF)
8	Kisatchie	14	42,267	$105.67	$233.19

AVERAGE NUMBER BIDDERS PER SALE: 3.5

	NUMBER OF SALES (BID)	(Successful)	VOLUME BID ON MBF	VOLUME AWARDED MBF	TOTAL VALUE AWARDED
Crown Zellerbach Corp.	5	2	18,544	10,485	$3,524,129
Louisiana-Pacific	5	1	14,006	1,085	316,031
Willametta Industry	7	1	25,063	7,531	2,726,290
H. & C. Veneer	4	1	19,167	2,799	504,411
Boise Southern Co.	3	2	24,247	11,454	875,223
Bodcaw Co.	5	2	24,266	2,312	342,316
Leesville Lumber	4	2	8,470	5,518	1,471,038
Alvis White	1	-	196	---	---
Owens-Illinois	2	-	11,116	---	---
Varcouver Plywood	3	-	23,823	---	---
Almond Bros. Lumber	4	1	7,722	---	---
Wiergate Lumber	2	1	5,647	153	31,320
J. K. Martin P/W	2	1	1,925	840	65,493
Burns Forest Prods.	1	-	840	---	---
Dobson Plywood Co.	1	-	840	---	---
Medco Timber Co.	1	1	700	700	23,410
Boise Cascade Corp.	1	-	700	---	---

Question: Show volumes under contract at beginning of year, volume under contract at end of year, and volume cut during the year for the two selected National Forests.

Answer: The following table shows the volumes of timber cut and under contract for the Siskiyou National Forest, R-6 and the Kisatchie National Forest, R-8 for FY 1980 as requested:

FY 1980 VOLUME UNDER CONTRACT

	Volume Under Contract (Million Board Feet)		Volume Cut (Million Board Feet)
	10/01/79	10/01/80	
R-6, Siskiyou National Forest	447,177	538,660	132,659
R-8, Kisatchie National Forest	286,600	292,200	144,300

Question: Does the data suggest that firms that are successful in bidding are increasing volume bought but not cut and contrary, are firms unsuccessful in bidding cutting timber already under contract?

Answer: Although some judgements can be drawn from the limited data available, such as that given in the previous tables, there is currently not sufficient data available to speculate about what companies are doing. Current market conditions are keeping some companies from bidding on any additional sales because of large inventories, while others continue to purchase sales and to maintain their harvest levels.

Question: Does the data suggest that those bidding are regular bidders and buyers and how does this data relate to successful versus unsuccessful bidders?

Answer: The current data on bidding patterns by various bidders is not readily available. There is continuous turnover of bidders, so that there are always some new bidders entering the market. We do not compile data that compares successful versus unsuccessful bidders.

Question: Does the data suggest that smaller firms or larger firms are differing in success?

Answer: The data in the previous table is not sufficient to determine whether small or large firms are more successful. The Forest Service and the Small Business Administration jointly administers the Small Business Set-Aside Program which assures that small business firms have an appropriate share of National Forest timber. Statistics are not readily available which would indicate one group is more successful than another in obtaining sales.

Question: What is the annual production levels from appropriate sources for each bidder?

Answer: The Forest Service does not collect or have available the current production levels for various bidders. These figures varies drastically from year-to-year, depending upon market conditions, numbers of shifts each company or plant has a week, number of days in operation and many other factors. For these reasons, no attempt is made to compile these figures. Each company compiles this information for their own use and is furnished to their trade association for public use.

QUESTIONS SUBMITTED BY CONGRESSMAN LES AuCOIN

RARE II

Question: Has the Administration made any recommendations concerning RARE II? When do you expect them to look at this problem?

Answer: This Administration has not made any recommendations concerning RARE II, however, we believe the recommendations by the previous Administration do provide a starting point for congressional consideration. We expect the Congress to continue its consideration as to which lands should be designated as wilderness and as requested we will provide Congress with specific recommendations on individual bills.

Question: Apparently, the Senate will be considering a bill which provides for so-called "release language" on a national basis. Does the Administration support that legislation?

Answer: In general, the Department of Agriculture does support "release language" as one method of resolving the status of roadless areas. Specifically we believe you are referring to S. 842 introduced by Senator Hayakawa. At the present time, we are analyzing this bill and will be developing an Administration position in anticipation of forthcoming hearings.

Question: In the State of Oregon, approximately 1.2 million acres of National Forest land was recommended for non-wilderness status in President Carter's RARE II recommendation. Has the Forest Service undertaken any activities in any of these areas? Can you provide an account of the type of activity undertaken to date for each of the RARE II areas in Oregon recommended for non-wilderness? Can you indicate which of these activities are currently under administrative or legal appeal, by area, and what the status of the appeal is?

Answer: The Forest Service has undertaken and carried out numerous projects and activities in areas designated as non-wilderness through the RARE II process. While we have not maintained a specific inventory of activities carried out in non-wilderness areas we are providing as attachments project information developed at the request of the House Committee on Interior and Insular Affairs. The material covers certain activities planned in the State of Oregon for Fiscal Year 1979 and 1980.

At the present time there are five administrative appeals pending on activities being undertaken in RARE II areas designated as non-wilderness.

Appeal Name and Location	Activity	Roadless Area Name and Number	Appeal presently under review by:
1. Niagara Shelter Siuslaw NF	Timber Sale	Hebo IA 6151	Chief
2. Lawrence Basin Siuslaw NF	Timber Sale	Hebo IB 6152	Region
3. Bald Mountain Siskiyou NF	Timber Sale	North Kalmiopsis 6176	Region
4. Pyramid Willamette NF	Timber Sale	Middle Santiam 6929	Region
5. Seven Styx Umpqua NF	Timber Sale	Rogue, Umpqua 6130	Region

DEVELOPMENTAL ACTIVITIES IN ROADLESS NONWILDERNESS

Activities listed are currently planned to occur in FY 80 within areas designated as nonwilderness as a result of the Forest Service RARE II process. Specific categories of activities were listed that have the potential for affecting wilderness qualities, particularly construction. This listing of projects is subject to change due to unforeseen emergencies, budgetary changes, and other activities such as minerals exploration or special use permit applications which may occur but are not predictable now. This list may not include some of the small Ranger timber sales and some potential salvage timber sales.

The RARE II NUMBER and NAME refers to the identification of areas listed in the Final RARE II EIS. ACTIVITY DESCRIPTION defines or localizes the activity. For California only, an * indicates the area lies within the jurisdiction of the Eastern District Court, a # indicates the area is included in the California Lawsuit.

Management Information Handbook (MIH) CODE consistent with all management information systems, lists activities by specific codes:

1. E06 - Planned Timber Sales

2. G02 - Mineral Management - Oil & Gas

3. L04 - Arterial Road Construction
   L08 - Collector Road Construction
   L12 - Local Road Construction
   L14 - Timber Sale Road Construction
   L30 - Temporary Road Construction

4. OTHER CONSTRUCTION
   A05 - Recreation Construction
   A06 - Recreation Reconstruction
   J01 - Special Uses
   P13 - Fuelbreak Construction, Maintenance

FY (Fiscal Year) identifies FY 80, while STATE, CONGRESSIONAL DISTRICT, REGION and FOREST are all coded for location of the planned activity. See attached codes for State, Region, and Forest.

ACRES, MILES and VOLUME describe the extent of the activity within the roadless area. MBF is the unit of measure, thousand board feet, unless otherwise noted.

SILVICULTURAL TREATMENT code distinguishes timber sale harvest methods:

100 - Regeneration harvest
200 - Intermediate harvest
230 - Sanitation (salvage) cutting

The STAGE OF DEVELOPMENT explains how far along plans were as of January 8, 1980. For oil and gas leases, "P" indicates a pending lease, "E" shows an existing lease, and "ES" describes those existing leases with restrictions on operations. For timber sales the following codes are explained:

600 - No activity completed
610 - Sale reconnaissance completed
620 - Sale area planning completed
630 - Sale design, package preparation completed
640 - Appraisal, review, advertising completed
650 - Bids opened
660 - Sale awarded

STATE CODES

CODE	NAME	CODE	NAME
01	Alabama	29	Missouri
02	Alaska	30	Montana
04	Arizona	31	Nebraska
05	Arkansas	32	Nevada
06	California	33	New Hampshire
08	Colorado	34	New Jersey
09	Connecticut	35	New Mexico
10	Delaware	36	New York
11	District of Columbia	37	North Carolina
12	Florida	38	North Dakota
13	Georgia	39	Ohio
15	Hawaii	40	Oklahoma
16	Idaho	41	Oregon
17	Illinois	42	Pennsylvania
18	Indiana	44	Rhode Island
19	Iowa	45	South Carolina
20	Kansas	46	South Dakota
21	Kentucky	47	Tennessee
22	Louisiana	48	Texas
23	Maine	49	Utah
24	Maryland	50	Vermont
25	Massachusetts	51	Virginia
26	Michigan	53	Washington
27	Minnesota	54	West Virginia
28	Mississippi	55	Wisconsin
		56	Wyoming

ADMINISTRATIVE FOREST AND REGIONS

REGION & FOREST NUMBER	FOREST NAME	REGION & FOREST NUMBER	FOREST NAME
01 02	Beaverhead	02 02	Bighorn
01 03	Bitterroot	02 03	Black Hills
01 04	Idaho Panhandle	02 04	Grand Mesa, Umcompahgre and Gunnison
01 05	Clearwater		
01 08	Custer	02 06	Medicine Bow
01 09	Deerlodge	02 07	Nebraska
01 10	Flathead	02 09	Rio Grande
01 11	Gallatin	02 10	Arapaho and Roosevelt
01 12	Helena	02 11	Routt
01 14	Kootenai	02 12	Pike & San Isabel
01 15	Lewis and Clark	02 13	San Juan
01 16	Lolo	02 14	Shoshone
01 17	Nezperce	02 15	White River

03 01	Apache-Sitgreaves
03 02	Carson
03 03	Cibola
03 04	Coconino
03 05	Coronado
03 06	Gila
03 07	Kaibab
03 08	Lincoln
03 09	Prescott
03 10	Santa Fe
03 12	Tonto

04 01	Ashley
04 02	Boise
04 03	Bridger-Teton
04 05	Caribou
04 06	Challis
04 07	Dixie
04 08	Fishlake
04 09	Humboldt
04 10	Manti-LaSal
04 12	Payette
04 13	Salmon
04 14	Sawtooth
04 15	Targhee
04 17	Toiyabe
04 18	Uinta
04 19	Wasatch

05 01	Angeles
05 02	Cleveland
05 03	Eldorado
05 04	Inyo
05 05	Klamath
05 06	Lassen
05 07	Los Padres
05 08	Mendocino
05 09	Modoc
05 10	Six Rivers
05 11	Plumas
05 12	San Bernardino
05 13	Sequoia
05 14	Shasta-Trinity
05 15	Sierra
05 16	Stanislaus
05 17	Tahoe
05 19	Lake Tahoe Basin

06 01	Deschutes
06 02	Fremont
06 03	Gifford Pinchot
06 04	Malheur
06 05	Mt. Baker-Snoqualmie
06 06	Mt. Hood
06 07	Ochoco
06 08	Okanogan
06 09	Olympic
06 10	Rogue River
06 11	Siskiyou
06 12	Siuslaw
06 14	Umatilla
06 15	Umpqua
06 16	Wallowa-Whitman
06 17	Wenatchee
06 18	Willamette
06 20	Winema
06 21	Colville

08 01	NFS in Alabama
08 02	Daniel Boone
08 03	Chattahoochee and Oconee
08 04	Cherokee
08 05	NFS in Florida
08 06	Kisatchie
08 07	NFS in Mississippi
08 08	George Washington
08 09	Ouachita
08 10	Ozark - St. Francis
08 11	NFS in North Carolina
08 12	Francis Marion & Sumter
08 13	NFS in Texas
08 14	Jefferson

09 02	Chequamegon
09 03	Chippewa
09 04	Huron-Manistee
09 05	Mark Twain
09 06	Nicolet
09 07	Ottawa
09 08	Shawnee
09 09	Superior
09 10	Hiawatha
09 11	Wayne-Hoosier
09 19	Allegheny
09 20	Green Mountain
09 21	Monongahela
09 22	White Mountain

10 02	Tongass-Chatham Area
10 03	Tongass-Sitka Area
10 04	Chugach
10 05	Tongass-Ketchikan Area

DEVELOPMENTAL ACTIVITIES IN ROADLESS NONWILDERNESS

RARE II number	RARE II name	Activity description	MIH code	Fiscal year	State	Congressional district	Region and forest	Acres impacted	Miles	Total sales volume (MBF)	Silv. treat.	Stage of development
06194	Bend Watershed	Bridge Creek	E06	1980	41	02	0601	740		9,700	230	660.
06109	Cowhorn	Margo (rd R/W)	E06	1980	41	02	0601	10			100	610.
06191	Metolius Breaks	Fuelbreak	E06	1980	41	02	0601	40		400	200	610.
06222	Hanan Trail	Witham LP	E06	1980	41	02	0602	975	1	2,200	100	630.
06226	Coleman Rim	South Creek	E06	1980	41	02	0602	320	.6	1,000	100	630.
06079	Silver Star	Oil and gas	G02	1980	53	04	0603	7,700				P.
B6071	Mount Margaret	Temporary road	L30	1980	53	04	0603	30	2			Approved plan.
B6238	Strawberry Mtn	Canyon	E06	1980	41	02	0604	600		6,600	100	640.
06232	Myrtle-Silvies	Cooley	E06	1980	41	02	0604	320		12,500	100	630.
06041	Mount Baker	Question	E06	1980	53	02	0605	10		530	100	640.
06041	do	Wallace Creek	E06	1980	53	02	0605	20		2,700	100	630.
06041	do	Elbow Salvage	E06	1980	53	02	0605	5	.2	570	230	640.
06041	do	Pug Salvage	E06	1980	53	02	0605	24	.45	2,000	100	640.
06041	do	Silver BDS	E06	1980	53	02	0605	115	.76	5,000	100	640.
06048	Pressentin	Gee Whiz Salvage	E06	1980	53	02	0605	3		500	100	730.
06048	do	Same BDS	E06	1980	53	02	0605	28		1,100	100	660.
06048	do	Buck BDS	E06	1980	53	02	0605	21		350	100	660.
06048	do	Swamp Salvage	E06	1980	53	02	0605	58		2,000	100	660.
I6031	Glacier Peak	Yellow BDS	E06	1980	53	02	0605	150	1.73	5,500	100	630.
I6031	do	High Rise (1/2)	E06	1980	53	02	0605	58		2,200	100	630.
06049	Higgins Mountain	Helicopter (2/2)	E06	1980	53	02	0605	21		800	100	630.
06049	do	Bridge BDS	E06	1980	53	02	0605	43	1.5	1,300	100	640.
06060	Prairie Mountain	Prairie Mountain	E06	1980	53	02	0605	25	.55	7,900	100	640.
06060	do	High Ridge	E06	1980	53	02	0605	53		4,200	100	630.
06055	Clearwater	Forth Round Salvage	E06	1980	53	03	0605	31		1,600	100	640.
06034	Norse Peak	Snotel Site-Corral Pass	J01	1980	53	04	0605	1				In place.
06050	Boulder River	Maintenance of historic site	J01	1980	53	02	0605	.1				Permit pending.
06041	Mount Baker	Road to private land	J01	1980	53	02	0605		2			Do.
B6097	Badger Creek	Highland	E06	1980	41	02	0606	200	1.7	5,000	100	610.
B6095	Salmon Huckleberry	Baldy	E06	1980	41	02	0606	500	8.2	15,000	100	660.
B6095	do	View	E06	1980	41	02	0606	60		1,800	100	610.
06093	Mount Hood Additions	Passline	E06	1980	41	02	0606	45	.9	2,000	100	630.
06093	do	Alpine	E06	1980	41	02	0606	23	2.3	.4	100	630.
06091	Lake	Otter Creek	E06	1980	41	02	0606	60	3.3	1,200	100	640.
06091	do	Barium	E06	1980	41	02	0606	35		1,800	100	640.

DEVELOPMENTAL ACTIVITIES IN ROADLESS NONWILDERNESS—Continued

RARE II number	RARE II name	Activity description	MIH code	Fiscal year	State	Congressional district	Region and forest	Acres impacted	Miles	Total sales volume (MBF)	Silv. treat.	Stage of development
B6098	Bull of the Woods	Oil and gas	G02	1980	41	02	0606	4,250				P.
06218	Silver Creek	Timber sale	E06	1980	41	02	0607	240	.4	2,500	200	630.
06213	Bridge Creek	Maxwell Reservoir	J01	1980	41	02	0607	1				Construction.
06213	do	Maxwell Diversion Ditch	J01	1980	41	02	0607	1				Do.
06213	do	Nelson Reservoir	J01	1980	41	02	0607	1				Do.
06215	Rock Creek	2 diversions 1 ditch	J01	1980	41	02	0607	1	.6			Existing.
06211	Green Mountain	Oil and gas lease	G02	1980	41	02	0607	6,630				P.
06212	Mill Creek	do	G02	1980	41	02	0607	15,950				P.
06214	Lookout Mountain	do	G02	1980	41	02	0607	13,440				P.
06218	Silver Creek	do	G02	1980	41	02	0607	640				P.
N6703	Kangaroo	Copper Butte Salvage	E06	1980	06	01	0610	80		440	230	630.
N6703	do	Bean Gulch Retreat	E06	1980	06	01	0610	50		645	100	630.
N6703	do	Middle Salvage	E06	1980	06	01	0610	100		900	230	630.
06147	Little Grayback	Papoose Salvage	E06	1980	41	04	0610	39		440	230	660.
06147	do	Charlie Buck Salvage	E06	1980	41	04	0610	20		56	230	660.
06147	do	Glick car	E06	1980	41	04	0610	158		3,100	100	630.
N6703	Kangaroo	Fish pond	E06	1980	41	04	0610	97	2.5	950	100	630.
06148	Kinney	Kanaka Gulch	E06	1980	41	04	0610	97	2.5	1,440	100	660.
06148	do	Kinney Salvage	E06	1980	41	04	0610	10		40	230	620.
N6703	Kangaroo	Swan	E06	1980	41	04	0610	176		3,340	100	660.
06147	Little Grayback	Construction	L12	1980	41	04	0610	10	1	100	100	660.
06147	do	Rockpit	J01	1980	41	04	0610	1				Planning.
06704	Condrey Mountain	Road construction	L04	1980	06	01	0610	.4	.2			EA prepared.
06147	Little Grayback	Rockpit	J01	1980	41	04	0610	1				
06130	Rogue Umpqua Divide	Gas and oil lease	G02	1980	41	04	0610	10,740				P.
06173	Rogue	Devil's Canyon	E06	1980	41	04	0611	200	4.5	7,000	100	630.
06176	North Kalmiopsis	Lazy Bluff	E06	1980	41	04	0611	60	1.5	2,600	100	630.
06179	Squaw Mountain	Spaulding	E06	1980	41	04	0611	200	2.9	4,500	100	630.
06180	Windy Valley	Mineral	E06	1980	41	04	0611	190	4.1	5,900	100	630.
06709	South Kalmiopsis	Bear Wallow	E06	1980	41	04	0611	202	4.3	5,300	100	620.
06709	do	Smith's Horse	E06	1980	41	04	0611	90	3	1,660	100	620.
06709	do	Firecracker	E06	1980	41	04	0611	84	1.2	2,290	100	620.
06709	do	Sourdough Smith	E06	1980	41	04	0611	72	1.3	1,260	100	630.
06173	Rogue	Upper Billings	E06	1980	41	04	0611	103	2.9	8,730	100	620.
06174	Potato Mountain	Upper Stonehouse	E06	1980	41	04	0611	150	2.7	4,650	100	620.

DEVELOPMENTAL ACTIVITIES IN ROADLESS NONWILDERNESS—Continued

RARE II number	RARE II name	Activity description	MIH code	Fiscal year	State	Congressional district	Region and forest	Acres impacted	Miles	Total sales volume (MBF)	Silv. treat.	Stage of development
06151	Hebo 1A	Powder Creek	E06	1980	41	01	0612	25	.1	1.1	100	640 active.
06151	do	Miscellaneous salvage (1/3)	E06	1980	41	01	0612	10		.1	230	Do.
06152	Hebo 1B	Miscellaneous salvage (2/3)	E06	1980	41	01	0612	10		.1	230	Do.
06153	Hebo 1C	Miscellaneous salvage (3/3)	E06	1980	41	01	0612	10		.1	230	Do.
06154	Waldport-Drift Creek	Trout salvage	E06	1980	41	01	0612	10		.3	230	630.
06153	Hebo 1B	Arterial road	L04	1980	41	01	0612		5.8			Survey.
06151	Hebo 1A	USAF radar site	J01	1980	41	01	0612	5	.5			In Progress.
06152	Hebo 1B	do	J01	1980	41	01	0612	5	.5			Do.
06155	Cummins Creek	Pipeline	J01	1980	41	04	0612	.1	.2			
06158	Woshink	Dune buggy rides	J01	1980	41	04	0612	800				
06158	do	Beachgrass nursery	J01	1980	41	04	0612	6				
06161	Tenmile	Research	J01	1980	41	04	0612	640				
06161	do	Water wells	J01	1980	41	04	0612	51				
06161	do	Powerlines	J01	1980	41	04	0612	Various				
06151	Hebo 1A	Oil and gas	G02	1980	41	01	0612	16,899				E.
06152	Hebo 1B	do	G02	1980	41	01	0612	6,617				E.
06153	Hebo 1C	do	G02	1980	41	01	0612	8,083				E.
06154	Waldport-Drift Creek	do	G02	1980	41	01	0612	11,260				E.
06155	Cummins Creek	do	G02	1980	41	04	0612	9,278				E.
06157	Smith-Umpqua	do	G02	1980	41	04	0612	7,230				E.
06158	Woahink	do	G02	1980	41	04	0612	5,100				E.
06159	Tahkenitch	do	G02	1980	41	04	0612	4,799				E.
06161	Tenmile	do	G02	1980	41	01	0612	7,798				E.
06266	Walla Walla River	10 applications	G02	1980	41	02	0614	13,400				P.
06261	Hellhole	22 applications	G02	1980	41	02	0614	35,800				P.
06253	North Fork John Day	Kelsey LP	E06	1980	41	02	0614	76		1,800	230	660.
06253	do	Meadow Cr. salvage	E06	1980	41	02	0614	500	3	6,000	230	630.
06258	Texas Butte	Mallony LP	E06	1980	41	02	0614	130		1,200	230	660.
06258	do	Scattered LP	E06	1980	41	02	0614	120		1,000	230	660.
06258	do	Hunter II	E06	1980	41	02	0614	1,960		1,200	230	630.
06268	Hells Half Acre	do	E06	1980	41	02	0614	560		250	230	630.
06257	Kelly Prairie	do	E06	1980	41	02	0614	1,680		2,000	230	630.
06270	Skookum	do	E06	1980	41	02	0614	1,040		300	230	630.
06562	Jaussaud Corral	Fortynine	E06	1980	41	02	0614	1,980	11.5	14,100	100	620.
06130	Rogue Umpqua Divide	Abbott sale	E06	1980	41	04	0615	128		550	230	630.

DEVELOPMENTAL ACTIVITIES IN ROADLESS NONWILDERNESS—Continued

RARE II number	RARE II name	Activity description	MIH code	Fiscal year	State	Congressional district	Region and forest	Acres impacted	Miles	Total sales volume (MBF)	Silv. treat.	Stage of development
06133	Donegan	do	E06	1980	41	04	0615	128		550	230	630.
06130	Rogue Umpqua Divide	Cow sale	E06	1980	41	04	0615	215		1,120	230	630.
06127	Dumont Creek	Smith Ridge	E06	1980	41	04	0615	16		900	230	630.
06126	Calf-Copeland	Miscellaneous salvage sale	E06	1980	41	04	0615	485		2,100	230	660.
06110	Pulldog Rock	Pulldog sale	E06	1980	41	04	0615	20		700	100	650.
06122	Puddin-Canton-Steel	Miscellaneous salvage sale	E06	1980	41	04	0615	100		1,000	230	630.
06126	Calf-Copeland	Knee salvage sale	E06	1980	41	04	0615	243		900	230	630.
06128	Last Creek	Glade salvage sale	E06	1980	41	04	0615	52		600	230	660.
06130	Rogue Umpqua Divide	Happy Canyon	E06	1980	41	04	0615	30	.2	1,500	100	630.
06110	Bulldog Rock	Ranger Thinning	E06	1980	41	04	0615	113		1,800	200	660.
06122	Puddin-Canton-Steel	Rock Ridge	E06	1980	41	04	0615	50	2.3	2,000	100	630.
06240	Monument Rock	Lookout salvage	E06	1980	41	02	0616	250		200	200	610.
06240	Monument Rock	Payton Gulch salvage	E06	1980	41	02	0616	300		250	230	600.
06501	Squaw	White salvage	E06	1980	41	02	0616	92		2,000	100	630.
06273	Twin Mountain	Ski development	J01	1980	41	02	0616	200				Planned.
06038	Lion Rock	Crystal-Ellensburg	E06	1980	53	04	0617	2,424	18	26,700	100	660.
06037	Bethel	Goose-Tieton	E06	1980	53	04	0617	10		100	200	633.
06035	Blue Slide	Grey Bear-Tieton	E06	1980	53	04	0617	50		900	100	632.
D6032	Cougar Lakes	Morgan Draw-Naches	E06	1980	53	04	0617	40		400	200	630.
06034	Norse Peak	West Crow-Naches	E06	1980	53	04	0617	42		890	100	630.
D6032	Cougar Lakes	Saddle Camp-Naches	E06	1980	53	04	0617	52		1,000	100	630.
06039	Naneum	Haney Sal.-Ellensburg	E06	1980	53	04	0617	304	.5	800	230	610.
B6031	Glacier Peak	Lake Wenatchee	E06	1980	53	04	0617	43	.5	1,500	100	660.
B6031	do	Snotel Constr	J01	1980	53	04	0617	1				Planning.
06033	Quartz Mountain	Oil and gas	G02	1980	53	04	0617	1,400				E.
B6098	Bull of the Woods	Miscellaneous salvage	E06	1980	41	02	0618	10		20	230	630.
06929	Middle Santiam	Donaca salvage	E06	1980	41	04	0618	14		720	100	660.
06929	do	Jude Bear	E06	1980	41	04	0618	9		700	100	630.
06929	do	Scar Lake II	E06	1980	41	04	0618	55	.64	2,900	100	630.
06929	do	Trail South	E06	1980	41	04	0618	163	3.52	10,500	100	630.
06929	do	Beabe Knob	E06	1980	41	04	0618	239	6.55	12,800	100	630.
06105	Hardesty Mountain	Schweitzer Ridge	E06	1980	41	04	0618	284	6	12,700	100	620.
06106	Waldo	Miscellaneous salvage	E06	1980	41	04	0618	175		500	230	620.
06106	do	Helen Creek Leave	E06	1980	41	04	0618	125		11,000	100	620.
06106	do	Skookum Creek	E06	1980	41	04	0618	20	.25	6,200	100	630.

DEVELOPMENTAL ACTIVITIES IN ROADLESS NONWILDERNESS—Continued

RARE II number	RARE II name	Activity description	MIH code	Fiscal year	State	Congressional district	Region and forest	Acres impacted	Miles	Total sales volume (MBF)	Silv. treat.	Stage of development
06110	Bulldog Rock	Dirty Dog	E06	1980	41	04	0618	45		30	230	640.
B6098	Bull of the Woods	Gold Creek Road—special use	J01	1980	41	02	0618	3	1			Reconstruction.
06929	Middle Santiam	Road right of way	J01	1980	41	04	0618	1	.1			Completed.
06105	Hardesty Mountain	Oil and gas lease appropriations	G02	1980	41	04	0618	640				P.
B6098	Bull of the Woods	Road	J01	1980	41	02	0618	70	9			Existing.

PLANNED ACTIVITIES DURING FISCAL YEAR 1979 IN RARE II ROADLESS AREAS ALLOCATED TO NONWILDERNESS

PREFACE

Proposed activities during fiscal year 1979 in RARE II roadless areas allocated to nonwilderness

Nature of proposed activity.—This list includes those projects which will represent a contract committment or physical activity which may impair wilderness characteristics during fiscal year 1979.

We have not included Project Planning activities for future years (fiscal year 1980 and beyond). Some planning activities may occur on nonwilderness but it will not affect their wilderness character, i.e. timber sale reconnaissance and boundary identification.

Authorizing Plan—Type of Plan

1. *Multiple use plan.*—All roadless areas are covered by some kind of a multiple use plan developed prior to implementation of NEPA in the early 1970s.
2. *Land management plan.*—This represents a more detailed and comprehensive planning effort under guidelines of the National Environmental Policy Act and utilizing an Environmental Impact Statement.
3. *Resource plans.*—These are functional plans such as Timber Management Plans, Forest Recreation Plans and Wildlife Plans.
4. *Project plan.*—Prior to on-the-ground implementation, most projects will have a project plan including an Environmental Analysis Report.

Many projects will be covered by more than one of the above types of plans.

Approved by.—Approval will be by line officers, Chief, Regional Forester, Forest Supervisor or Ranger.

We only listed activities which might impair the wilderness characteristics of the area. We did not include ongoing activities which would not effect wilderness characteristics such as timber sale planning or road survey. The information on timber sale activity should be complete with the exception of actions that might occur based on unforeseen emergencies such as fire damaged timber, or small salvage sales. There are other activities such as mineral exploration or special use permit applications which may occur in the current fiscal year, but are not predictable now. We did not compile data on activities beyond the current fiscal year because any such ruling would be incomplete and subject to change. Such future activities will be based on approved multiple use, land management, resource or project plans. The reason for our plans is to permit resource management that is responsive to on-the-ground resource needs.

ABBREVIATIONS

Type of plan:
LMP—Land Management Plan
MUP—Multiple Use Plan
TMP—Timber Management Plan
EAR—Environmental Analysis Report

Approving officer:
RF—Regional Forester
FS—Forest Supervisor
DR—District Ranger

PROPOSED ACTIVITIES IN NONWILDERNESS ROADLESS AREA DURING FISCAL YEAR 1979

State and congressional district	Forest	RARE II number	Area name	Nature of proposed activity from Apr. 15, 1979 to Sept. 30, 1979	Authorizing plans		Date
					Type of plan	Approved by	
Oregon:							
4	Rogue River	06148	Kinney	Insect and disease control—40 acres (whip felling).	Project plan	DR	October 1978.
4	do	06147	Little Grayback	Insect and disease control— 20 acres (whip felling).	do	DR	Do.
4	do	06146	McDonald Peak	Aerial release using herbicide—200 acres	(1)	(1)	(1).
4	do	06147	Little Grayback	Aerial release using herbicide—100 acres	(1)	(1)	(1).
4	do	06130	Rogue Umpqua Divide	Cedar eradication in meadow for range management—50 acres.	LMP	RF	June 7, 1978.
2	Fremont	06226	Coleman Rim	Timber sale 1 previously cut over. Included in area erroneously—0.5 MMBF.	(2)	(2)	(2).
4	Siskiyou	06709	S. Kalmiopsis	Prospecting—mineral impact	(3)	(3)	(3).
4	do	06180	Windy Valley	Timber sale—0.9 MMBF	LMP	RF	June 30, 1979.
					TMP	Chief	Aug. 21, 1962.
4	do	06173	Rogue	Three timber sales—16.8 MMBF	LMP	RF	June 30, 1979.
					TMP	Chief	Aug. 21, 1962.
4	Rogue River	06147	Little Grayback	Salvage sale—0.1 MMBF	TMP	RF	July 28, 1978.
4	do	06703	Kangaroo	Insect and disease control—40 acres (whip felling).	Project plan	DR	October 1978.
2	Wallowa-Whitman	06248	Reservoir	Maintenance of reservoir by permittee—minimal impact.	Special use permit	FS	Apr. 14, 1972.
4	Willamette	6929	Middle Santlam	Slash burning	LMP	RF	Nov. 7, 1977.
					TMP	RF	Do.
					Project plan	FS	December 1970.
4	do	6929	do	Timber sale, 0.7 MMBF	LMP	RF	Nov. 7, 1977.
					TMP	RF	Do.
					Project plan	DR	Apr. 1, 1979.
4	Rogue River	06130	Rogue Umpqua Divide	Range improvement—4 spring development	LMP	RF	June 7, 1978.
4	do	06130	do	Use permit—pole cutting in lodgepole pine—10 acres.	LMP	RF	Do.
2	Umatilla	06253	North Fork John Day	Timber sale—1 MMBF	MUP	FS	Nov. 18, 1968.
					TMP	Chief	Jan. 11, 1963.
2	do	06257	Kelly Prairie	Salvage sale—0.1 MMBF	MUP	FS	May 26, 1972.
					TMP	Chief	Jan. 11, 1963.

PROPOSED ACTIVITIES IN NONWILDERNESS ROADLESS AREA DURING FISCAL YEAR 1979—Continued

State and congressional district	Forest	RARE II number	Area name	Nature of proposed activity from Apr. 15, 1979 to Sept. 30, 1979	Authorizing plans		Date
					Type of plan	Approved by	
2	do	06258	Texas Butte	Salvage sale—0.5 MMBF	TMP	Chief	Do.
2	do	06270	Skookum	Salvage sale—0.1 MMBF	TMP	Chief	Do.

[1] Dropped due to 2-4-5T restriction.
[2] Delayed until after fiscal year 1979.
[3] Prospecting permit issued.

SPECULATIVE BIDDING

Question: It is my understanding that the value of timber sold in Region 6 in FY 1978 was about $52 million. In FY 1980, approximately the same volume sold for $1.2 billion. Is this true?

Answer: The volume and value of timber sold in Region 6 in FY 1978 and FY 1980 is as follows:

	FY 1978	FY 1980 1/
Volume	4,987,730	5,126,422
Total Value	842,287,929	1,286,084,752
Average Value per MBF	168.87	250.87

1/ Preliminary data.

Question: What has accounted for this increase? How has the lack of a RARE II solution, rising interest rates, a slumping housing market, and a stagnant timber sales level affected this increase in value?

Answer: We believe that the following factors have contributed to the increased values:

1. Declining supplies of private timber;
2. Uncertainties over the dependability of National Forest supplies, RARE II, and undependable budget levels;
3. Timber sale procedures which facilitate betting on inflation;
4. Entry of nonmanufacturers into stumpage market; and
5. Timber industry shares in the inflationary trends in the national economy.

The high interest rates have hurt the housing market and are closely tied to the inflation rate. It is the anticipation of continued inflation which allows high bids for stumpage which may not be logged for 3, 4, or more years. We do not believe that the relatively constant level of Forest Service timber sales has significantly influenced excessive bidding except as it relates to declining supplies of private timber.

Question: What has happened to lumber prices during this period? Haven't they gone down due to the slumping market?

Answer: The Western Wood Products Association reports a lumber price index for seven species/product groups. Each group has shown essentially the same trend--an increase from CY 1978 to CY 1979 and a decrease in CY 1980 to a level lower than in CY 1978. The housing market is a major contributor to this trend.

Question: Given the housing market picture and the peculiarities of the industry, hasn't the competition between timber firms been heightened and hasn't this led to, if not speculatory bidding, bidding governed by forces other than those we associate with a classic theory of supply and demand? Would you say that some of the marginal or slightly above marginal firms have been forced to buy more timber just to stay in business? Do you think this accounts for some of the increase in timber sales backlog over the last year?

Answer: In many areas of the country competition has been increasing and this has resulted in higher bid prices. Where excessive bidding is occurring stumpage price levels are above the levels which can be economically justified at current lumber and plywood prices.

These sales can be profitably operated only if current inflationary trends in the economy continue through the sale period. Thus, the very large volume under contract is not economically available to dampen fluctuations in market demand. If such high price levels do not materialize within a reasonable time many marginal and overextended purchasers will be in serious trouble.

Question: It is generally assumed that there is a tremendous amount of pent-up demand for housing which will be released in the not too distant future. Given that demand, and the fact that mills continue to close, do you think we will have adequate mill capacity if we don't try and apply some brakes to the escalating stumpage values?

Answer: The closure of mills during depressed market conditions does have an impact on the ability of the industry to respond to rising demands in the future. The ability to go to double shifts gives some flexibility, but when a mill is closed its production is lost. For many years it was relatively easy for firms to move in and out of the market. But a mill designed to meet today's marketing and environmental standards requires a very large investment which is often hard to justify given the cyclical markets for wood products.

Question: There have been a number of suggestions made which, if applied, could slowdown this speculation without putting the slightly above marginal mill out of business. Could you comment on the effect the following five elements might have in slowing speculation:

a. Shorter term sales?
b. Smaller sales?
c. Front end money?
d. Punitive damages?
e. No extensions?

Answer a: In areas where high bidding has caused concern, most purchasers have the capability of removing the sale volumes in substantially less time than the contract allows. Recognizing that a reasonable volume under contract is essential for sound planning and for obtaining financing, it would be feasible to reduce sale periods in many areas without significantly affecting operating costs. Shortened sale periods would require the bidder to base his price on current and reasonably short-term market expectations, rather than bidding with the hope of holding the sale for some future upward surge on the lumber market.

Answer b: Smaller sales would have reduced contract periods, thus, the effect is similar.

Answer c: Increasing the amount of the bid deposit would increase the capital requirements for holding volume under contract. It would be more expensive to speculate. The volume under contract would be held more in line with specific operating needs and prompt operation of the sale after purchase would be encouraged.

Answer d: Imposing punitive damages for failure to complete contracts may have a minor effect on speculation. However, most bidders bid with the intention of completing the contract and would not expect to incur these damages.

Answer e: Some purchasers have used extensions to automatically obtain an additional year for sale operation. This enables them to bet further on favorable future markets. Eliminating extensions would reduce the total time available for operating the sale and thus force the bidder to give more attention to current market levels and to market levels which would be anticipated in the immediate future.

It must be recognized that increasing cash requirements and decreasing operating time impinges most heavily on the smaller operators.

Question: Considering how bad market conditions are, wouldn't you agree that a purchaser really faces very little risk when he bids on a sale? Would any or all of the five elements mentioned bring some risk into the equation? Would that element of risk slowdown speculation?

Answer: Many of the changes in timber sale procedures that have been made over the years have tended to reduce risk for purchasers. Each of the elements mentioned in the previous question would increase risk and this would reduce excessive bidding.

Question: When demand for housing returns, what will be the price of lumber if the bidding prices are allowed to increase as they have? Wouldn't a plan bringing some risk back into the process hold down lumber prices from what they would be if the present situation is allowed to continue?

Answer: We do not know what lumber prices will be in the future, but increasing risk may reduce lumber price increases to the extent that reduced stumpage costs are not offset by increased operating costs.

FORESTRY INTENSIFIED RESEARCH

Question: Is there money available in the revised budget for the Forestry Intensified Research (FIR) project? If "yes," how much and is the project on schedule?

Answer: Yes; there is $750,000 included in the revised budget. This level of funding will maintain fundamental research at Oregon State University at the 1981 level. The revised budget reduced the fiscal 1981 Carter budget by $330,000. The project is currently on schedule, but the Forest Service portion of the research program will continue at a slower rate.

Question: What is the purpose of the project? What have been the results from the program so far?

Answer: The purpose of this program is to address the difficult reforestation and tree growth problems in southwest Oregon. The program features research and operational-size tests and demonstrations intended to reduce costs, speed up reforestation and tree growth, and otherwise avoid forest regeneration failures.

The adaptive phase of FIR is now in its second year. Scientists from Oregon State University have initiated 11 research projects, held 17 workshops on reforestation problems for over 800 foresters and landowners of southwest Oregon, and conducted five tours for about 325 people to demonstrate new reforestation techniques. Scientists have published eight technical reports and produced a quarterly newsletter which now reaches about 900 practitioners.

The fundamental phase of FIR is now completing its first year. Scientists from Oregon State University and the Forest Service have initiated 35 long-term research studies on problems of reforestation, site classification, young stand management, tree improvement and growth. First year results have demonstrated that careful selection of nursery stock can result in successful reforestation on thousands of acres of hand-to-reforest sites. BLM managers have already begun to implement these findings, allowing harvest of 14 million board feet of timber per year in areas previously withdrawn from harvest because of reforestation failure. This harvest annually provides $4 million in revenue, $2 million of which goes to counties.

Question: What will happen if the program is not carried out?

Answer: The immediate and long-term effects of a lack of reforestation have both economic and aesthetic impacts. The four county area in southwest Oregon currently produces about 2 billion board feet of timber per year; however; several thousand acres of timber have been withdrawn from harvest because reforestation cannot be assured. The annual loss in revenue from withdrawal is estimated to be $25 million per year. Research is still needed to assure the prompt and dependable regeneration of desirable species in this highly productive forest area of Oregon.

COPPER RIVER DELTA

Question: How many areas like Alaska's Copper River Delta does the Forest Service manage? Is the Forest Service considering plans to transfer the Copper River Delta management area to the Fish and Wildlife Service? Provide for the record what options -- administrative or legislative -- are available to transfer Copper River Delta to the Fish and Wildlife Service.

Answer: The Copper River Delta is very important for its wildlife and fish habitat. Other resources in the area include recreation opportunities, timber, water, and minerals. The Alaska National Interest Lands Conservation Act provides that the conservation of fish and wildlife and their habitat shall be the primary purpose for the management of this area.

There are areas with important wildlife and fish habitat values throughout the National Forest System and the Forest Service has the expertise to manage these values in coordination with the other natural resources. While there are few areas in the National Forest System that have such high fish and wildlife values over such a large area, comparisons between individual areas cannot be made without specific criteria and extensive compilation of data.

The Copper River Delta is within the Chugach National Forest. Forest Land Management Planning is currently underway. In the past, the Forest Service wildlife and fishery biologists, in conjunction with other agencies and other Forest Service professionals, have had an active management program. There is a wetlands program which consists of nesting and feeding improvement programs and population studies in cooperation with the Alaska Department of Fish and Game. There are several existing and potential fish habitat improvement projects on the Delta. The Forest Service believes that continuation of the interagency cooperation and conformance with the National Forest Management Act, Alaska National Interest Lands Conservation Act, and other applicable legislation will provide a full and responsive management program. Because of this, it is not considering plans to transfer the area to the Fish and Wildlife Service.

Rationale for Retaining National Forest Acres in Copper River Delta

The broad statutory authority given the Forest Service to manage lands under the concept of multiple-use provides a sound basis for managing the Copper River Delta area. The Copper River Delta has been identified as principally valuable for waterfowl purposes. Other activities and uses are directed to maintain and enhance waterfowl habitat management.

The Forest Service manages prime waterfowl habitat in many parts of the United States in copperation with the Fish and Wildlife Service, State Departments of Fish and Game, Wildlife Foundations, and others.

On National Forest lands, the Forest Service is responsible for the management of the habitat, with the Fish and Wildlife Service acting in an advisory capacity. The States have control over hunting regulations and other methods of waterfowl protection. Research by the Forest Service is primarily concerned with habitat and land use management.

At the present time, there are four prime waterfowl management areas on the National Forests in Alaska where cooperative management agreements are in effect between the Forest Service, the Fish and Wildlife Service, the Alaska Department of Fish and Game, and the Alaska Department of Natural Resources. These are: (1) the Copper River Delta Game Management Area, (2) the Bering River-Controller Bay Trumpeter Swan Management Area, (3) the Stikine Flats Area, and (4) the Chickaloon Flats Area. Another such agreement on the Portage Flats is near completion.

Similar agreements are in effect in other parts of the country, such as on the Modoc National Forest in northern California, and the Chippewa National Forest in Minnesota where waterfowl improvement projects are being conducted in cooperation with other agencies and waterfowl foundation groups.

Resources and Developments Foregone if Copper River Delta Becomes a National Wildlife Refuge

Approximately 40 percent of the area is presently being managed primarily to protect waterfowl under existing cooperative management agreements with the U.S. Fish and Wildlife Service, the Alaska Department of Fish and Game, and the Alaska Department of Natural Resources. These two agreements, covering the Copper River Game Management Area and the Bering River-Controller Bay Trumpeter Swan Management Area, recognizer the Trumpeter swan, Dusky Canada geese, and other waterfowl species as the key resource values. A full-time wetlands biologist and an assistant are stationed on the area for management and administration. Habitat management, cooperative game protection, bird banding, and research are currently being carried out by the Forest Service.

TIMBER SALES

Question: Provide the costs of sales preparation and timber sales offerings by 100 million board foot increments from 11.3 billion board feet to 12.5 billion board feet.

Answer: The attached tables provide the information by 100 million board foot increments.

Question: Has the additional 300 million board feet added to the FY 1981 Timber Sales level been prepared? Has it been offered? When do you expect it to be offered? Provide, in detail, the costs associated with preparing and offering the additional 300 million board feet? Is it true that total costs, including road construction, will come to $50 million? Why?

Answer: The additional 300 million board feet authorized and funded by Congress for FY 1981 is currently being assembled. None of this volume is currently available for sale. We expect the volume to be prepared and available for offering in FY 1982 and beyond. The actual date of offering will depend on the specific Forest sale program and the necessary funding.

The following table shows the estimated cost breakdown for the preparation and offering of the 300 million board feet. The total cost is estimated to be $50.9 million dollars. This is based upon the costs for the advance sales preparation work, volume determination and advanced roading for new sale offerings in previously unroaded areas. The Regions have indicated that costs for these sales will be above average costs.

Sales	FY 1981 M$	FY 1982 M$
Preparation Offered	6.0	1.6
Support Services	4.5	---
Timber Road Construction	19.2	3.0
Timber Purchaser Roads	---	16.5
Total	$29.7	$21.2

1982 Timber Sales Levels

	11.3 bbf Total	11.4 bbf Prep - Offer (increment)	11.5 bbf Prep - Offer (increment)	11.6 bbf Prep - Offer (increment)	11.7 bbf Prep - Offer (increment)	11.8 bbf Prep - Offer (increment)	11.9 bbf Prep - Offer (increment)	11.9 bbf Total
Sales Prep	160.1	161.5	162.9	164.4	165.8	167.2	168.6	168.6
Sales Admin	38.0	38.3	38.6	39.0	39.3	39.7	40.0	40.0
Subtotal	(198.1)	(199.8)	(201.5)	(203.4)	(205.1)	(206.9)	(208.6)	(208.6)
Support -								
Minerals	1.4	1.5	1.5	1.5	1.5	1.5	1.6	1.6
Landline	21.6	21.8	22.0	22.2	22.3	22.5	22.7	22.7
Fire	3.1	3.2	3.2	3.2	3.3	3.3	3.4	3.4
Rd. Mtce	43.3	43.7	44.0	44.4	44.8	45.2	45.6	45.6
Recreation	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.1
Wildlife & Fish	5.7	5.8	5.9	5.9	6.0	6.0	6.1	6.1
Range	.5	.5	.6	.6	.6	.7	.7	.7
Soil & Water	6.7	6.7	6.8	6.8	6.9	6.9	7.0	7.0
Total NFS	(93.0)	(94.0)	(94.8)	(95.5)	(96.4)	(97.1)	(98.2)	(98.2)
C&LA -								
Rd. Const*	243.0	245.1	247.2	249.4	251.6	253.7	255.9	255.9
Purchaser Const	230.3	232.3	234.4	236.4	238.4	240.5	242.5	242.5
Total C&LA	(473.3)	(477.4)	(481.6)	(485.8)	(490.0)	(494.2)	(498.4)	(498.4)
Brush Disposal	44.0	44.5	44.8	45.2	45.6	46.0	46.4	46.4
Purchaser Election	38.2	38.5	38.9	39.2	39.5	39.9	40.2	40.2
Timber Salvage Sale	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.4
Tongass Tbr. Supply Fund	39.9	40.2	40.6	40.9	41.3	41.7	42.0	42.0
Subtotal	(124.3)	(125.5)	(126.6)	(127.6)	(128.7)	(130.0)	(131.0)	(131.0)
TOTAL	888.7	896.7	904.5	912.3	920.2	928.2	936.2	936.2
PFT Staff - years								

*Includes 10% Fund

1982 Timber Sales Levels

	12.0 bbf Total	12.1 bbf Prep - Offer (increment)	12.2 bbf Prep - Offer (increment)	12.3 bbf Prep - Offer (increment)	12.4 bbf Prep - Offer (increment)	12.5 bbf Prep - Offer (increment)
			(Million Dollars)			
Sales Prep	171.5	173.3	175.5	177.7	179.9	182.1
Sales Admin.	40.3	40.6	41.0	41.3	41.7	42.1
Subtotal	(211.8)	(213.9)	(216.5)	(219.0)	(221.6)	(224.2)
Support -						
Minerals	1.7	1.7	1.8	1.8	1.9	1.9
Landline	23.7	24.8	25.8	26.9	27.7	28.7
Fire	3.4	3.4	3.4	3.4	3.5	3.5
Rd. Mtce	46.0	46.3	46.7	47.1	47.5	47.9
Recreation	11.2	11.4	11.5	11.7	11.8	11.9
Wildlife & Fish	6.1	6.2	6.3	6.3	6.4	6.5
Range	.8	.8	.8	.9	.9	.9
Soil & Water	7.1	7.1	7.2	7.3	7.3	7.4
Total NFS	(100.0)	(101.7)	(103.5)	(105.4)	(107.0)	(108.7)
C&LA -						
Rd. Const*	261.8	267.7	273.5	279.4	285.3	291.2
Purchaser Const	247.5	252.5	257.6	262.6	267.7	272.7
Total C&LA	(509.3)	(520.2)	(531.1)	(542.0)	(553.0)	(563.9)
Brush Disposal	46.8	47.2	47.6	47.8	48.4	48.8
Purchaser Election	41.6	42.9	43.2	44.6	45.9	46.2
Timber Salvage Sale	2.4	2.4	2.4	2.5	2.5	2.5
Tongass Tbr. Supply Fund	42.4	42.7	43.1	43.4	43.7	44.1
Subtotal	(133.2)	(135.2)	(136.3)	(138.3)	(140.5)	(141.6)
TOTAL	954.3	971.0	987.4	1,004.7	1,022.1	1,038.4
PFT Staff - years						

*Includes 10% Fund

Question: The Forest Service's latest RPA projection indicates that there will be a 15.9 billion board foot gap in 1990 between supply and demand for timber. The Forest Service also maintains that Canadian timber sources and Southern private non-industrial lands will help make up that shortfall. A number of Canadian studies, including the "Forest and Range Resource Analysis Report", prepared by the Province of British Columbia's Ministry of Forests, and "Recent Reductions in the Canadian Timber Base", prepared by the Canadian Pulp and Paper Association, note that the Canadian timber harvest has essentially peaked if there are not massive new infusions of investment. Likewise, the Forest Service's conclusion that the use of Southern private non-industrial land to help alleviate the shortfall projected has been criticized as overly optimistic in a number of reports, including the Forest Industries Council's "Forest Productivity Report". Given these reports, detail how the Forest Service intends to meet the demand projected in 1990.

Answer: In most analyses which deal with future relationships in timber supply and demand responses, there frequently are varied opinions on the future course of events. The softwood timber situation in North America is no exception. The investments in National Forest timber management, timber-related Forest Service research activities, and State and Private Forestry expenditures related to timber management and production in the private sector outlined in the 1980 RPA Recommended Program are aimed at providing adequate timber supplies which will meet future demands. A revised RPA Recommended Program will be submitted to Congress in 1985. This program will reflect renewable natural resources management needs as analyzed at that time and, of course, would reflect any changes in needs which would arise from any changing perspectives on evolving timber supply and demand relationships.

QUESTION SUBMITTED BY CONGRESSMAN DON H. CLAUSEN

AIR TANKER CONTRACTS

Question: Will the Forest Service have enough money in fiscal year 1982 to award all 45 airtanker contracts as part of their fire suppression program?

Answer: Yes. The Forest Service plans to maintain a fleet of 44 airtankers for fiscal year 1982. One less airtanker is required because one airtanker can provide the service of two previous airtankers by timing of contracts and pre-positioning.

ADDITIONAL COMMITTEE QUESTIONS

LAND MANAGEMENT PLANNING

The National Forest Management Act (NFMA) required that land and resource management plans be completed for all "units" of the National Forest System by 1985. Nine Regional Plans, implementing the 1980 RPA Program, and forest plans for 120 administrative units are under preparation.

Question: Describe what these plans will consist of and how you will use them in carrying out the RPA Recommended Program.

Answer: The Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976, provides the legislative direction for Forest Service planning. It seeks to ensure that Americans recognize the importance of the Nation's renewable resources and the necessity of long-term planning for their management and use.

Activity is presently underway within the Forest Service to prepare for updating the RPA Program and supplementing the Assessment in 1985. The 1985 update will incorporate resource data from National Forest Land and Resource Management Plans as well as that from State Forest Resource Plans.

A primary purpose of regional planning is to help link the RPA Assessment and Program with local planning (Forest and States). Regional Plans now under development will:

1. Display the regional RPA Program along with its distribution among the Forests and a description of State and Private Forestry and Research programs. The RPA output targets represent each unit's share of the national 1980 RPA Program based on existing plans and other available information used to develop the RPA Program and subsequent budget proposals.

2. Provide planning direction for developing Forest Plans, including the range of alternatives to be considered. Planning direction may also result from the resolution of certain regional issues relevant to land management decisions.

3. Develop the standards and guidelines for the management of the National Forests as required by Section 6 of the National Forest Management Act of 1976 and the implementing regulations.

The Regional Plan will be subject to change as new and better data on biological capabilities and social, economic, and environmental effects become available through the Forest and State planning processes.

Forest Plans will include a reasonable range of alternatives, both above and below the 1980 RPA Program. One or more alternatives will be designed to meet the Forest's share of the 1980 RPA Program. Other alternatives will address the long-term goals established by Congress in the revised Statement of Policy and specific issues on the Forests. The Regional Foresters' decisions on individual Forest Plans are not constrained by the RPA Program since it was primarily based on plans existing in 1977. Rather, the emphasis in Forest planning will be on the future and how the Forest can best be used and managed to meet people's needs.

By collecting and integrating basic data on biological potential, resource inventories, and research problems, local plans become the basic building blocks for regional and national planning. The Forest and State plans now being developed will play an important role in shaping the next RPA Assessment (1989) and Program (1985).

Forest Plans for 120 administrative units are under preparation for all lands in the National Forest System. These Forest Plans will constitute the land and resource management plans developed in accordance with Section 6 and 13 of the RPA, as amended, and will include all management planning for resources.

Question: Describe the guidelines included in your regulations on how alternatives for departures from the nondeclining yield, evenflow policy will be considered. What are the conditions that must exist in a National Forest before such departures will be considered. How did you determine that 16 National Forests currently have the potential for departure consideration?

Answer: On June 12, 1979, President Carter directed the Secretary, Department of Agriculture, "consistent with existing legal requirements, to use maximum speed in updating land management plans on selected National Forests with the objective of increasing the harvest of mature timber through departure from the current nondeclining evenflow policy."

The National Forest System Land and Resource Management Planning regulations (36 CFR 219) contain national guidelines directing that departure alternatives will be considered and formulated when the following conditions exist on a National Forest:

(1) High mortality losses from any cause can be significantly reduced or prevented or forest age class distribution can be improved facilitating future sustained yield management.

(2) Implementation of the corresponding base harvest schedule would cause a substantial adverse impact upon a community in the economic area in which the Forest is located.

(3) None of the alternatives already considered provides a timber harvest schedule that achieves the goals of the program as provided in Section 219.4(b) of the regulations.

About 40 National Forests were originally identified by the Forest Service as having possible potential for departure on the basis of biologic consideration. Of these 40 National Forests, 16 have been selected on which to accelerate the planning effort. The selection of these 16 National Forests was based on the timber inventory, current at that time, which indicated substantial amounts of mature and over mature timber which could be candidates for harvesting immediately.

DEPARTURES

DIRECTION FOR FOREST PLANNING

DEFINITION:

A departure is a timber harvest schedule which deviates from the base harvest schedule for a given alternative so as to result in a planned decline in the timber harvest schedule anytime in the future.

The above definition is based on 36 CFR 2219.12 (d)(1)(iii) which states, "Alternatives with harvest schedules which depart from the principles of paragraph (i)....." (underlining added). This section can be interpreted so that the harvest schedule principle being addressed in (i) is nondeclining flow and therefore, only a harvest schedule that departs from that principle constitutes a departure. This view is supported by language in the Congressional Record leading up to the passage of the NFMA and also the issue that the law and regulations address, that is, considering harvest schedules which cannot be sustained thereafter. (See attached examples.)

HOW DEPARTURES WILL BE CONSIDERED IN FOREST PLANNING:

1. Departure opportunities will be identified and analyzed in the Analysis of the Management Situation (AMS) when any one of the following conditions do, or are expected to exist: (1) high mortality losses from any cause can be significantly reduced or prevented; (2) timber age-class distribution can be improved thereby facilitating future sustained-yield management; (3) implementation of the corresponding base harvest schedule would cause a substantial adverse impact upon a community in the economic area in which the forest is located; (4) none of the alternatives considered provide a timber harvest schedule that achieves the goals of the RPA Program; or (5) other concerns, issues, and opportunities deem it advisable.

2. Departure opportunities will be analyzed for selected alternative(s). The focus of the analysis will be directed to the relationship of the departure to the base harvest schedule of the selected alternative(s) in terms of meeting multiple use objectives, which incorporate environmental, social, and economic factors.

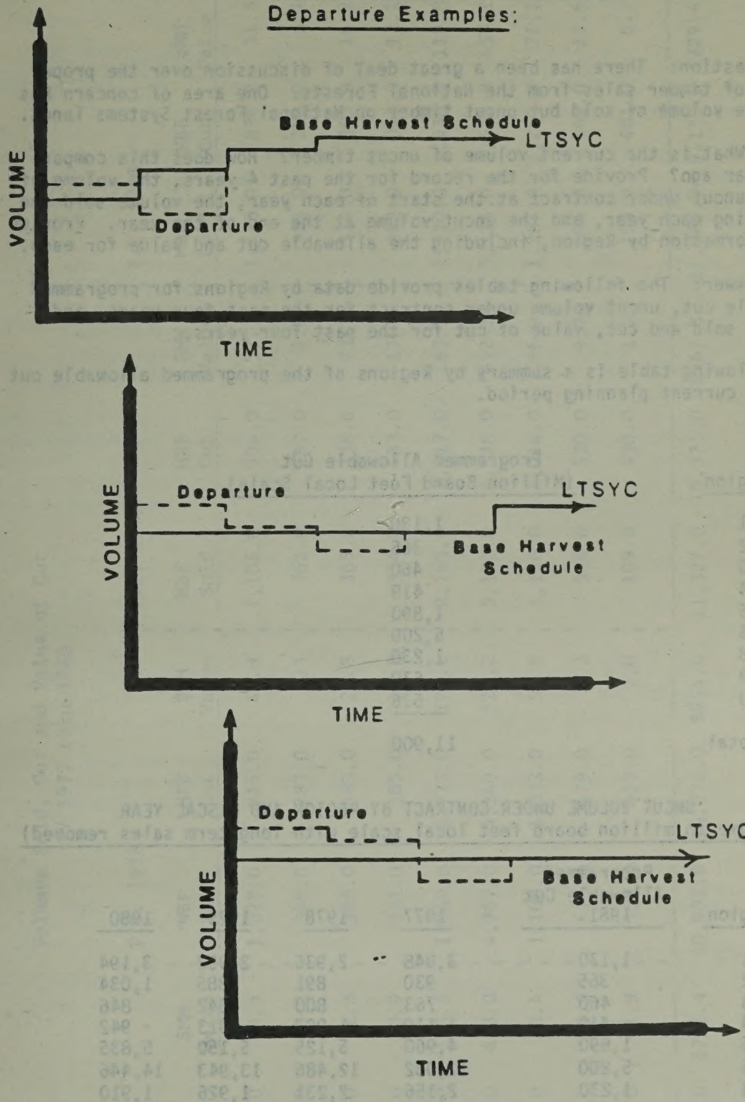
3. Departure harvest schedules will be based on the same acreage as used to arrive at the base harvest schedule for the selected alternative(s). Any change in the acreage, either temporarily or permanently, constitutes the creation of a new alternative and is not a departure.

4. While departure harvest schedules will temporarily deviate from the base harvest schedule of the selected alternative(s), they will eventually be at the same level as the long-term sustained-yield capacity of the selected alternative(s). The long-term sustained-yield capacity of the selected alternative(s) will be determined on the basis of the lands suitable for timber production used in arriving at the base harvest schedule.

5. In analyzing departure opportunities the planning horizon (or FORPLAN projection period) shall be far enough into the future to assure that the departure harvest schedule is at, or promises to be at, the long-term sustained-yield capacity of the selected alternative(s). Normally, the planning horizon need not exceed 300 years.

6. Departure opportunities formulated in the AMS that meet any of the conditions (1)-(4) under item 1 will be brought forward in the draft environmental impact statement (DEIS) as an alternative(s) or preferred alternative. The rationale for not bringing any departure opportunities forward to the DEIS will be fully documented.

Departure Examples:



LTSYC=Long-Term Sustained-Yield Capacity

TIMBER SALES AND SAWMILL CAPACITY

Question: There has been a great deal of discussion over the proper levels of timber sales from the National Forests. One area of concern has been the volume of sold but uncut timber on National Forest Systems lands.

--What is the current volume of uncut timber? How does this compare to a year ago? Provide for the record for the past 4 years, the volume of timber uncut under contract at the start of each year, the volume sold and cut during each year, and the uncut volume at the end of the year. Provide the information by Region, including the allowable cut and value for each.

Answer: The following tables provide data by Regions for programmed allowable cut, uncut volume under contract for the past four years, and volumes sold and cut, value of cut for the past four years.

The following table is a summary by Regions of the programmed allowable cut for the current planning period.

Region	Programmed Allowable Cut (Million Board Feet Local Scale)
1	1,130
2	365
3	460
4	419
5	1,890
6	5,200
8	1,230
9	670
10	536
Total	11,900

UNCUT VOLUME UNDER CONTRACT BY REGION AND FISCAL YEAR
(Volume in million board feet local scale with long term sales removed)

Region	Programmed Allowable Cut 1981	1977	1978	1979	1980
1	1,130	3,048	2,936	2,952	3,194
2	365	930	891	885	1,034
3	460	763	800	842	846
4	419	1,110	1,007	913	942
5	1,890	4,960	5,125	5,150	5,835
6	5,200	12,032	12,486	13,943	14,446
8	1,230	2,156	2,231	1,926	1,910
9	670	1,990	1,810	1,830	1,945
10	536	441	601	251	344
Total	11,900	27,430	27,887	28,692	30,495

1/ All long term sales removed including Juneau unit. 10.8 billion board feet October 1, 1980.

Volumes Sold, Cut and Value of Cut
FY 1977 thru 1980

Region	F.Y. 1977			F.Y. 1978			F.Y. 1979			F.Y. 1980		
	MBF Sold	MBF Cut	$MM Value	MBF Sold	MFB Cut	$MM Value	MBF Sold	MBF Cut	$MM Value	MBF Sold	MBF Cut	$MM Value
1	1,011.0	1,113.0	48.3	1,028.0	945.0	44.9	1,106.0	994.0	57.3	1,133.0	836.0	31.5
2	304.0	326.0	5.2	386.0	282.0	5.3	362.0	287.0	4.6	323.0	250.0	3.1
3	283.0	402.0	21.3	386.0	380.0	23.8	365.0	338.0	23.7	334.0	365.0	16.2
4	402.0	450.0	23.9	381.0	385.0	15.8	334.0	433.0	17.1	363.0	306.0	12.2
5	1,590.0	1,882.0	158.5	1,940.0	1,775.0	178.6	2,163.0	1,817.0	185.9	1,920.0	1,450.0	119.8
6	4,765.0	4,343.0	423.0	4,987.0	4,340.0	524.2	5,138.0	4,528.0	612.1	5,126.0	3,628.0	457.2
8	1,072.0	1,029.0	43.4	1,108.0	1,032.0	52.8	1,166.0	1,014.0	56.3	1,281.0	1,297.0	71.1
9	491.0	471.0	6.9	616.0	479.0	7.2	584.0	530.0	9.3	606.0	562.0	11.6
10	1.0	465.0	1.9	159.0	457.0	2.0	109.0	430.0	1.5	199.0	481.0	6.7
Total	9,919.0	10,481.0	$732.4	10,991.0	10,075.0	$854.6	11,327.0	10,371.0	$967.8	11,285.0	9,175.0	$729.4

Question: What are you projecting this uncut volume will be by the end of FY 1982?

Answer: We anticipate that the uncut volume under contract by the end of FY 1982 to be approximately 32 billion board feet.

Question: What is the current sawmill capacity by Region?

Answer: We do not maintain this type of information and it would take a great deal of time to compile. These figures vary depending upon mill openings and closings, the number of shifts that are operating, and other similar data.

Question: In a news release dated April 30, 1980, you announced that some timber harvesting contracts would be extended for an additional year, due to the slump in the lumber market. At that time, prices for all major saw timber species were more than 20% below the levels of the previous 2 years. How many contracts have been extended since your announcement? What percentage of the total contracts currently in existence does this represent?

Answer: Approximately 605 timber sale contracts have been extended under the provisions of the Chief's April 25, 1980, relaxed policy letter. This is 5 percent of the approximate 11,667 timber sale contracts of over $2,000 in value in force.

FOREST MANAGEMENT, PROTECTION AND UTILIZATION

Question: You estimate receipts for timber and forest products at $1.2 billion in FY 1982, up from $742.9 million in 1981. Was there a general reduction in the timber cut in the U.S. in 1980, or was it mainly National Forest sales where the cut was reduced. Provide for the record data on public and private timber harvests for 1980.

Answer: Yes, our preliminary estimates of total roundwood production show a 7.4 percent reduction in 1980. The reduction in timber harvest on the National Forests was 11.8 percent.

	1979	1980	%
Total roundwood production in million cubic feet--all ownerships	13,360	12,368	7.4
National Forest timber harvest in million board feet	10,377	9,148	11.8

Question: Will you provide a 4-year projection on National Forest revenues by source, compare it with recent years, and show impacts on payments to counties?

Answer: The following table displays the last 3 years and projection of next four years of National Forest revenues and related payments to States and counties.

Receipts by Source
(millions of dollars)

	1978 Actual	1979 Actual	1980 Actual	1981 Est.	1982 Est.	1983 Est.	1984 Est.
Power	.4	.4	.4	.5	.6	.6	.7
Mineral leases & permits	10.9	15.9	20.2	24.0	27.0	30.0	32.0
Land uses	1.8	1.8	2.2	2.3	2.4	2.5	2.6
Timber & forest products	699.4	796.3	600.0	742.0	1200.0	1300.0	1500.0
Grazing	9.4	11.3	14.0	13.1	14.0	14.5	14.5
Rec., admission & user fees	14.0	16.4	18.3	20.2	22.2	24.1	26.0
Subtotal, National Forest Fund	735.9	842.1	655.1	802.1	1266.2	1371.7	1575.8
Oregon & Calif. grant lands	24.2	31.3	25.1	26.3	27.6	28.1	28.9
National Grasslands & Land Utilization 1/	5.6	7.5	22.4	24.3	25.6	35.1	39.0
Timber Purchaser Road Constr.	124.2	154.7	164.2	190.2	212.2	237.0	260.6
Timber Sale Area Betterment (K-V)	65.6	111.5	115.7	74.4	79.9	108.0	118.8
TOTAL RECEIPTS	955.5	1147.1	982.5	1117.3	1611.5	1779.9	2023.1
Payments to States & Counties 2/	255.8	240.6	280.3	234.5	275.4	396.0	437.8
1/ Includes Minerals of:	3.8	6.0	20.3	22.1	22.4	30.0	33.0

2/ Payments based on prior year receipts

Your 1982 estimate for general administration is $301,434,000, a decrease of $1.6 million from the 1982 base, but an increase of $17.0 million over 1981.

Question: How does your 1980 actual compare with the amount originally estimated?

Answer: The estimate in the FY 1981 Explanatory Notes for FY 1980 general administration was $221,857,000. This is compared our actual expenditure of $222,057,000.

Question: You state that the reason for the decrease in 1982 is the increased emphasis being given to include under GA only those costs that cannot be readily identified with specifically financed program and functions. If you adjusted 1980 and 1981 to be on a comparable basis, with reallocations to specific programs, how would the 1982 estimate compare to those years.

Answer: Considering inflation the difference would be comparable to the difference between the 1982 base and 1982 estimate.

Question: Page 15 of Explanatory Notes shows the units which spend the general administration funds. For the record, show for fiscal year 1980 actual, 1981 estimate, and 1982 estimate of both positions and amounts for each of the units. What are the reasons for the increases for each unit between 1981 and 1982?

Answer: The Forest Service budget and accounting system does not provide for accumulating this information at the Washington Office headquarters. Items to be included in the general administration budget are approved at each field unit and financial plans are prepared. The financing of general administration costs is by formula (group-performance principle) published in the Forest Service Manual.

STATE & PRIVATE FORESTRY

Question: You state that 2.5 million acres of Federal, State, and private land received treatment in 1980. Do you know how many acres were treated without Federal assistance? How do you decide when Federal participation is called for?

Answer: We do not know the total acres treated without Federal assistance. We do know that the State of Maine treated 1,013,000 acres for spruce budworm control. Several thousand gypsy moth-infested acres were treated in the New England States. Federal financial participation must first be requested. The proposal must meet one or more of the following criteria:

- Are there international consequences involved, i.e., will Federal involvement significantly alter the impact on resources of the U.S. or neighboring Nations?
- Would significant national or regional adverse economic impacts occur without Federal assistance?
- Does the project magnitude, complexity of land ownership, or the involvement of several States make Federal assistance necessary in order to reduce control costs through managerial efficiencies and consequent improved cost-effectiveness?
- There must be a significant threat to adjacent Federal lands with losses expected to occur the ensuing fiscal year.

MINERALS AREA MANAGEMENT

Question: You show a $3.6 million increase to keep pace with the increased workload. Can you explain how you will be able to process over 25,000 applications with a program total of $13.6 million if the $3.6 million increase will only allow processing of 2,300 application?

Answer: The 25,000 lease applications and operating plans are the total workload for locatable, leasable, and salable minerals. The $13.6 million is, however, the budget for only the leasable minerals program. We expect to process 14,000 operating plans and applications for leasable minerals during FY 1982. (This is a unit cost of approximately $1,000,000). The $3.6 million would allow for the processing of an additional 2,300 applications, a reasonable cost relative to average Forest Service unit cost.

Question: You are also projecting an increasing workload in locatable minerals activity due to the shortage of strategic minerals. What workload level are you projecting? How does it compare to 1980 and 1981?

Answer: We are projecting the workload in fiscal year 1982 for locatable minerals to be 135 person years. In FY 1980, we had 110 person years in locatable minerals and 117 person years in FY 1981. The increase from FY 1981 to FY 1982 represents a total of 18 individuals in the workforce.

LAND LINE LOCATION

Question: Your request for land line location is $30.2 million, a decrease of $2.7 million. You have 50,000 known trespass cases, which you estimate will cost $112 million to resolve. What is the basis for that estimate?

Answer: The estimate of numbers of cases is based on an inventory made in 1976. The basis for the cost estimate is audit report number 60315-13F, as of July 20, 1977, of Land Status and Cadastal Engineering conducted by the Office of Audit, U.S. Department of Agriculture. Their estimate was based on a statistical sample ofcosts per case to litigate trespasses.

Question: Based on your estimate of 2,000 new cases each year, how long will it take you to to resolve these cases? What is the impact of the delay?

Answer: Our plan is to complete the backlog of trespass cases in 40 years, fiscal year 2020, plus reduce the number of new cases per year. The objective of 40 years is dependent on the level of landline location activity for the next 20 to 25 years.

Delay is very costly in terms of money spent to resolve trespass as well as loss of resources and land.

MAINTENANCE OF FACILITIES

Question: You are requesting $15.6 million for maintenance, a decrease of $142,000 which will delay condition surveys and other planning activities which will affect future years' programs. One of your areas of emphasis will be health and safety. What percentage of the total health and safety requirements will be met with your 1982 request?

Answer: The proposed fiscal year 1982 funding level will enable us to meet less than 10 percent of our currently identified health and safety and other maintenance needs. However, probably no actual progress will be made in meeting our total maintenance requirements, because our facilites will be deteriorating at a faster rate than they can be repaired.

PAYMENTS TO EMPLOYEES' COMPENSATION FUND

Question: What is the basis for the $1.5 million increase in this fund over 1981?

Answer: The payments to the Employees' Compensation Fund increased from $5.1 million in 1978 to $5.5 million in 1979--a 6% increase. It increased to $6.5 million in 1980--an 18% increase, and to $7.7 million in 1981--a 20% increase. Our estimate of $8.5 million for 1982 assumes a conservative increase of 10% from actual payments in 1981.

FOREST FIRE PROTECTION

Question: Your 1982 request is $178.4 million, a decrease of $4.8 million lower than the Carter request. The formal analysis system you have adopted makes it possible for you to identify the most economically efficient program, which is identified to be $185.3 million. The Carter budget had requested $181.1 million, versus $178.4 million in the Reagan budget. What is the consequence of funding a less than efficient program?

Answer: The consequences of funding a less than efficient cost program are higher suppression costs (FFF) and higher resource losses. The greater losses results in a more expensive program. The consequence of reducing the budget from $185.3 to $178.4 is higher total cost plus net value change of $3.5 million.

Question: The Reagan justification identifies estimated cost increases that will be incurred as result of the reduction: $2.5 million in suppression costs, and a $1.9 million increases in net resource value change. Are these in addition to the costs identified in the Carter buget ($2.6 and $1.1 million respectively)?

Answer: No. Here is a table which should clarify the changes in costs between the various program alternatives discussed in relation to FY 1982.

Program Description	Forest Fire Protection	Forest Firefighting Fund	Net Values Change	Total
Most efficient	185.3	69.6	34.9	289.8
1982 Base	183.2	71.6	36.3	291.1
1982 Carter proposal	181.1	73.6	37.5	292.2
1982 Reagan proposal	178.4	75.6	39.3	293.3

COOPERATIVE LAW ENFORCEMENT

The Forest Service request is $5.5 million, an increase of $500,000 over 1981, and a decrease of $1.2 million from the Carter's budget. Agreements will continue at the 1981 level of about 385, rather than 460 as originally planned.

Question: Since the National Forest Management Act enhanced payments to the counties, what is the rationale for continuing these supplemental payments?

Answer: The cooperative law enforcement program provides reimbursement to State and local law enforcement for extraordinary expenses associated with protecting the public and their property on the National Forests (16 USC 551a). Most often, this protection is the responsibility of the county sheriff. In many cases, the number of visitors to the National Forests equals or greatly exceeds the resident population of the counties (225 million visitor days in 1980). Since this visitor use is seasonal and often in geographically remote areas, extraordinary costs are associated with protecting this visiting public. While payments in lieu of taxes (PILT) are made to most of these counties, those that are most remote and least densely populated frequently do not receive sufficient PILT funds to carry out an effective law enforcement program on the Forest. Payments from the National Forest Fund (25 percent Fund) are also made to most of these counties but are available only for roads and schools and not for law enforcement purposes. During fiscal year 1981, agreements were in effect with 385 of approximately 800 eligible jurisdictions. It is anticipated that agreements will be maintained at 385, however, with reduced services in fiscal year due to funding restraints.

Through contractual agreements, the Forest Service can influence the services received. In absense of an agreement, services may not be responsive to the publics' needs while visiting the National Forests. PILTS funds do not provide for such agreements.

Question: What is the basis for determining that the presence of a National Forest creates unique or additional law enforcement requirements for the local government concerned? What statistics do you have regarding the incidence of crime in the National Forests?

Answer: The increase in crime in rural areas, according to Federal Bureau of Investigation statistics, are far more dramatic than increases in urban areas. The past 5 years have shown an increase of 33 percent in property crimes, 59 percent in robbery crimes, 33 percent in larceny-theft, and 39 percent in aggravated assault. In 1980 there were 225 million visitor days use in National Forest System lands. From the best source available, there were 77,419 crimes committed on National Forest System land in 1980. Generally, these are crimes over which the Forest Service has no enforcement jurisidiction and rely wholely upon State and county enforcement agencies.

The Law Enforcement Management Reporting System (LEMARS) is presently being automated as a step toward more effective cost/benefits and cause/relationships can be established and crime rates can be accurately predicted for various Cooperative Law Enforcement program budget levels.

Recently, on the Wayne Hoosier National Forests, increased patrol units by the County Sheriff reduced the incidence of assault of the public from over 40 cases per weekend to 2 or less per weekend at an additional cost of $300 per weekend.

Increased patrols in California clearly prevented outlaw motorcycle gangs from illegally occupying and preventing public use of campgrounds. These patrols were on the Labor Day weekend. On the Fourth of July, 1980, additional patrols were not provided and over 60 families were intimidated to the degree they left the National Forest campground.

Question: What is the breakdown by State of the actual or proposed payments under this program for 1980-82? Also, provide the same breakdown for payments in lieu of taxes and the 25 percent Fund.

Answer: Payments in lieu of taxes are available for 1980 only. 1981 payments have not been completed and the Bureau of Land Management does not estimate payments. All other information is attached as No. 1 and No. 2 and made a part of this answer. The 1982 estimates for CLE Funds are based on the current $5.5 million request. There will be some adjustments. The proposed budget level will result in concentrating cooperator law enforcement in those periods of peak visitor use. Through careful and thorough analysis, the potential effect on Forest Service users will be minimized by appropriate distribution of, and timing in, the use of the funds.

No. 1
State Summary of 25 Percent Fund and
Payment-In Lieu of Taxes Funds

(Thousands of dollars)

State	Actual FY 1980 25% Fund	Actual FY 1981 25% Fund	Estimated (Nov. 1980) FY 1982 25% Fund	Actual FY 1980 PLT
Alabama	894	953	1,105	114
Alaska	3,574	6,528	7,600	4,126
Arizona	5,009	4,234	4,925	7,702
Arkansas	3,590	4,272	4,970	1,593
California	50,452	37,551	43,521	11,607
Colorado	1,897	1,958	2,269	7,594
Florida	1,286	1,615	1,872	2,038
Georgia	797	826	958	780
Idaho	13,805	10,315	12,000	6,280
Illinois	53	55	60	322
Indiana	106	67	70	314
Kentucky	211	184	219	736
Louisiana	3,185	2,329	2,700	134
Maine	17	16	16	50
Michigan	730	828	960	1,609
Minnesota	402	428	500	1,474
Mississippi	5,025	5,682	6,600	427
Missouri	3,102	3,852	4,464	1,030
Montana	9,460	7,585	8,820	8,171
Nebraska	59	60	70	326
Nevada	255	311	320	5,260
New Hampshire	253	242	250	297
New Mexico	2,557	2,429	2,815	9,701
North Carolina	332	506	586	894
North Dakota	-0-	-0-	1	572
Ohio	81	60	70	420
Oklahoma	517	605	700	784
Oregon	121,080	98,888	115,401	2,778
Pennsylvania	549	664	770	494
South Carolina	2,147	1,812	2,100	98
South Dakota	675	713	826	1,852
Tennessee	232	274	316	651
Texas	1,382	1,486	1,722	1,302
Utah	918	1,108	1,284	8,241
Vermont	68	156	180	135
Virginia	181	251	300	1,465
Washington	40,289	32,709	38,000	1,455
West Virginia	161	200	232	797
Wisconsin	392	470	550	735
Wyoming	1,252	1,398	1,650	6,625
Puerto Rico	7	7	7	17
TOTAL	276,982	233,627	271,779	101,000

NO. 2

STATE SUMMARIES OF COOPERATIVE LAW ENFORCEMENT
FISCAL YEAR 1980 PAYMENTS; FISCAL YEAR 1981 PLANNED
AND FISCAL YEAR 1982 PROPOSED PAYMENTS ($M)

State	FY 1980 Payments	FY 1981 Planned	FY 1982 Proposed
Alabama	50	52	52
Alaska	137	132	132
Arizona	363	372	372
Arkansas	66	66	66
California	851	943	943
Colorado	125	150	150
Florida	125	143	143
Georgia	51	57	57
Idaho	379	397	397
Illinois	49	49	49
Indiana	25	24	24
Kentucky	122	109	109
Louisiana	40	39	39
Maine	10	9	9
Michigan	147	157	157
Minnesota	144	165	165
Mississippi	29	29	29
Missouri	95	87	87
Montana	296	292	292
Nebraska	2	2	2
Nevada	41	46	46
New Hampshire	72	65	65
New Mexico	331	354	354
New York	6	5	5
North Carolina	170	185	185
North Dakota	25	28	28
Ohio	25	27	27
Oklahoma	11	11	11
Oregon	501	508	508
Pennsylvania	57	52	52
South Carolina	15	17	17
South Dakota	33	35	35
Tennessee	58	64	64
Texas	44	45	45
Utah	302	298	298
Vermont	31	26	26
Virginia	0	0	0
Washington	335	325	325
West Virginia	31	35	35
Wisconsin	65	58	58
Wyoming	22	25	25
Puerto Rico	19	17	17
TOTAL	5,300	5,500	5,500

TIMBER SALES ADMINISTRATION AND MANAGEMENT

Question: What are the current projections of housing starts for the next several years?

Answer: According to preliminary data from the Bureau of the Census, housing starts dropped to a seasonally adjusted annual rate of 1,218,000 units in February, down some 24.6 percent from January's rate of 1,615,000. The February decline was reported to be the sharpest since 1960 when construction fell about 26 percent between February and March.

Just before the February decline was reported, the National Association of Homebuilders Econometric Forcasting Service was projecting 1,407,000 new starts for 1981, up 8.8 percent from 1980, and with nearly all of the increase in the multifamily sector. They were also expecting a more pronounced recovery in 1982 to 1,679,000 starts with about a million of them single family and the remainder multifamily. The assumption on which their 1982 forecast was based reflects anticipated success of the Reagan Administration's proposed budget and tax programs.

Forecasters at NAHB's Residential Construction Forecast Conference, which was held on April 22, in Washington, DC, updated their forecast to 1,311,000 starts in 1981 and 1,586,000 starts in 1982.

Question: How does that compare to the past 2 years?

Answer: Total private and public housing starts are shown below:

Calendar Year	Total Private and Public Housing Starts (In thousands of Units)
Actual Starts	
1979	1,749.1
1980	1,298.7
Projected Starts (by NAHB)	
1981	1,311.0
1982	1,586.0
1983	1,762.0
1984	1,910.0
1985	1,961.0

Question: If housing and other conditions improve in FY 1982 and beyond, does your 1982 request allow you to increase sale and harvest levels gradually to your potential annual yield of 15.2 BBF? If not, what costs would be required in FY 1982?

Answer: The presently proposed President's budget for the Forest Service does not provide for any anticipated increase in timber sales for FY 1982 and beyond. The 1982 budget is programmed for a level 11.9 billion board feet through 1985 and beyond. In order to build toward a 15.2 billion board feet, the FY 1982 budget would have to be increased by $30.2 million while the sell remains at 11.9 billion board feet, to provide for the advance sale preparation and advance access road development into previously nonroaded areas.

Question: Given today's conditions and your projections, when do you think you might be able to prepare and harvest your annual potential yield?

Answer: A significant part of potential yield is hardwood material for which markets are limited. In addition a significant amount of the potential yield is in areas where costs of extraction are high because of other resource values. The RPA recommended program does not anticipate achieving the full potential yield until after 2010.

Question: You are decreasing salvage sales funding (which is derived from receipts desposited on the National Forests) by $9.7 million. This will allow a sales volume of 1.3 BBF, the same as 1981. How does this unobligated carryover compare to that in previous years? Why are you holding sales steady?

Answer: The actual salvage sale program for FY 1982 is expected to be $12,389,000. This is the estimated program costs we expect for FY 1982 unless a major catastrophe occurs. The decrease in additional appropriations needed in FY 1982 is due to the expected accumulation of receipts from salvage sale funds which will be available for expenditure. We are salvaging about all of the available material annually that current markets will accomodate.

The original salvage sale funds of $6 million has produced an accumulation of approximately $27 million in revenues up to FY 1981. With a preliminary obligation of $11.2 million for FY 1981, the expected unobligated funds was expected to be $15.8 million. However, because of unexpected increases in salvage fund needs to cover new situations, several Regions and increased operating costs in two Regions, an additional $3.8 million has been requested for the balances of FY 1981.

The accumulated salvage sale fund balance carried over each year has been increasing each year as more sales are made and more volume is harvested. The amount of volume sold each year has increased since 1979 to approximately 1.3 billion board feet. We would expect this volume to remain at this level or decrease slightly, barring any unforeseen catastrophe.

Question: How much do you collect in commercial fuelwood sales?

Answer: In fiscal year 1980 we sold 122 million board feet of fuelwood valued at $611,121.72.

REFORESTATION AND STAND IMPROVEMENT

Question: Half of the increase is for higher costs (average of $20 per acre higher) because of less accessible and more difficult sites. Where are those sites? Have they all been identified already?

Answer: The areas planned for reforestation have been identified and have approved planting prescriptions. The following chart shows the acres to be reforested with appropriated funds by Region and the total reforestation needs by Region.

REGION	Acres-Appropriated Funds in FY 1982	Acres in Need of Reforestation As of October 1, 1980
1-Northern	40,000	395,433
2-Rocky Mountain	5,600	56,024
3-Southwestern	15,000	96,158
4-Intermountain	15,000	83,400
5-Pacific Southwest	23,600	149,387
6-Pacific Northwest	33,300	324,464
8-Southern	51,500	135,846
9-Eastern	30,000	63,738
10-Alaska	1,000	45,451
Total	215,000	1,349,901

Question: How much of the appropriated reforestation funds is for advanced site preparation?

Answer: Approximately $7,800,000.

Question: Why are you able to reforest more acres (250,000) with less funds ($60.1 million) under the K-V reforestation program than with regular appropriated funds?

Answer: K-V funds are used to reforest sites recently harvested in timber sales. The costs are lower than those done with appropriated funds because of good access and less site preparation required in cut-over areas.

Question: Your request for timber stand improvement is $28.2 million, a decrease of $7.3 million, which will decrease acreage by 27,000 acres. You state that at the planned rate of TSI, about 405,000 acres should be treated annually. Why are you doing only 182,000 acres in 1982?

Answer: The planned TSI program for 1982 consists of doing 182,000 acres with appropriated funds, 142,000 acres with K-V funds and 18,000 acres through the human resource programs. This totals 324,000 acres or 80 percent of the 405,000 acres needed. The reduction resulted from budget constraints. The Forest Service, along with other agencies, shared in a reduced budget for most activities. The proposed budget will allow the Forest Service to improve timber stands on the higher productive sites.

Question: What impact does the continuing decline in TSI (from 457,000 acres in 1980 to 368,000 acres in 1981 to 324,000 acres in 1982 have on productivity and on reaching the full potential yield?

Answer: The relationship of the TSI program and full potential yield of timber from the National Forest is critical. There is a serious impact on timber yields if TSI treatments are not applied when needed to benefit the growth of stands of trees. These treatments can increase timber production by as much as 50 percent over the life of a stand primarily by capturing growth that would otherwise be lost on trees that die or are not needed because of size or quality. The weighted average productivity of the TSI acres in need of treatment is 77 cubic feet per acre per year. If TSI treatments increase yields by just 25 percent, each additional acre of release or thinning could result in an average increase in yield of 19 cubic feet per acre per year (25% x 77).

Question: An increase of $4.0 million is requested for nursery operations, for nursery maintenance, and to expand the tree improvement program. The Reagan reduction will delay the establishment of 5 seed orchard projects. How many such projects in total have been or will be established?

Answer: In this context, seed orchard projects includes all aspects relating to establishing a seed orchard--selection, propagation, orchard establishment, and evaluation of parent material. Service-wide, 97 seed orchards and clone breeding arboreta have been established. We estimate a total of 750 orchards will need to be established over the next 15 years.

Question: In what other ways will the seed orchard program be expanded?

Answer: The tree improvement program is being expanded primarily in Region 6--Oregon and Washington. Breeding zones have been delineated based on the best physiographical and biological data available. Outstanding trees are being selected within the breeding zones, and then included into seed orchards. These parent trees are evaluated by progeny testing their offspring.

Question: Will the $1.0 million for nursery maintenance and operation meet all identified needs?

Answer: Yes, the $1.0 million additional funding will meet the nursery maintenance and operation needs for FY 1982.

There are needs, however, for expanding existing facilities and continuing construction already initiated. An additional $4.1 million of nursery construction funds could be used in fiscal year 1982 for the following:

Region	PROJECT	Estimated Cost-$	
4	Cold storage facility at Lucky Peake, Idaho	300,000	
5	Land development and buildings - Placerville	71,000	
	Nursery and tree improvement - Chico, CA	1,244,000	
6	Bend nursery development - Oregon	338,000	1/
	Medord nursery development - Oregon	494,000	1/
	Wind River nursery development - Washington	1,611,000	2/
	Dorena tree improvement - Oregon	65,000	1/
	Total	4,123,000	

1/ Project included in reprogramming request.
2/ $1,040 of this in reprogramming request.

ANADROMOUS FISH HABITAT IMPROVEMENT

Question: You are giving emphasis to anadromous fish habitat in your fish habitat improvement program, which is increasing by $0.4 million. Can you be more specific as to what these projects involve?

Answer: Projects for the fish habitat program include removal of natural and human caused stream barriers to access new spawning and rearing habitat for migratory species such as salmon and steelhead; streamside fencing to permit vegetation growth for bank stabilization and temperature maintenance; diversion screening to reduce losses of fish migrating to the ocean; construction of spawning channels for increased reproduction and fish ladders to provide access for fish over stream barriers which cannot be removed.

Question: What is the impact of the $3.0 million reduction in the Reagan budget from your original request?

Answer: The budget reduction will result in a postponement of the projects to rehabilitate and improve the habitat for anadromous fish species on National Forest System lands in Alaska, California, Washington, and Oregon. This will affect funding in FY 1983 and beyond in these States, and others such as Idaho, Montana, and States with potential for atlantic salmon such as New Hampshire and Vermont. The fish production that could have resulted from the habitat improvement work is further delayed. In addition, the credibility of the Forest Service is reduced with some States, such as California, where joint planning for long-term rehabilitation of anadromous habitat is developed with funds from several other Federal and State agencies. There will be a far reaching effect on commercial fisheries in the Pacific Northwest, Native American subsistence and the recreation industry in future years.

RANGE MANAGEMENT

Question: Your request is $37.5 million, a decrease of 0.8 million and $2.4 million below the Carter budget. Can you explain your phrase "emphasis will be placed on development and application of livestock grazing programs on National Forest System lands to encourage livestock production on private forested ranges"?

Answer: We will emphasize (give priority to) those range management activities that demonstrate, encourage and promote to private landowners sound livestock grazing practices.

Question: Your request for the grazing program is $32.1 million, essentially level with the base, but a $1.0 million reduction from the Carter budget. This will allow a 9.9 million AUM grazing program, but will reduce range administration an ecological support. What is your assessment of the condition of the National Forest rangelands? Is the requested level adequate to inspect, maintain, or improve its condition to desired levels? If not, what would be required?

Answer: Our most recent estimate of the ecological condition of National Forest System rangeland suitable for livestock grazing is:

Conditions	Acres (MM)	Percent
Good	13.1	24
Fair	25.0	46
Poor	14.2	26
Very Poor	2.1	4
	54.4	100

Some 16.3 million acres (poor and very poor condition classes) are rated as being in low or unsatisfactory ecological condition, i.e., producing less than 40 percent of their natural potential productivity. Essential planning an administration will be carried out at the current budget level. Inventory, analysis and allotment management planning must be reduced.

Under current funding much of the range improvement work is accomplished with the Rangeland Improvements fund. General administration and program management costs associated with these funds are borne by the Range Management account. The accummulative effect over the last several years has been that inventory, analysis and planning has not stayed ahead of the range development program. Shortage of Range Management funds will result in some Forests not being able to obligate all the available Rangeland Improvements fund.

We will reduce range ecologists' advice regarding revegetation of disturbed timber sale areas and mining sites, and probable impacts of varying intensities and periods of recreation use upon forest and range ecosystems.

To fully finance the RPA Recommended Program for 1982, $44,523,000 of Range Management funds would be needed.

Question: Will this budget allow you to produce the range management input to the Land Management Planning process?

Answer: Priority has been given the completion by the end of fiscal year 1983, of all Regional and Forest land resource plans, as prescribed by the National Forest Management Act. This includes the necessary inputs from range management.

Question: What is the total cost for the grazing program? What is the net revenue after payments to counties and investments in improvements? Is the program supported by the revenues it generates?

Answer: Costs for the grazing program in fiscal year 1982 are:

P&M Appropriation	Dollars in thousands
Range Administration	32,087
Range Forage and Structural Improvements	3,936
Rangeland Improvements	
Range Forage and Structural Improvements	6,500
TOTAL EXPENDITURES	$42,523

Range Administration includes expenditures association with managing the livestock grazing program plus the other direct and indirect costs associated with rangeland management such as costs of land managment planning, law enforcement, threatened and endangered plants, and ecological support to other programs.

Grazing receipts for fiscal year 1980 were $15,850,000 of which $3,962,500 were paid to counties and $6,940,000 was appropriated for the Rangeland Improvements Fund. Grazing receipts for fiscal year 1980 were derived from an average fee per animal month of $2.41 on National Forests and $3.51 on National Grasslands. Based upon the current charge, revenue derived from livestock grazing will not offset expenditures for the grazing program.

The grazing program benefits other resource uses for which we have not assigned dollar values. In California, for example, cattle and goats are used to help maintain fuel breaks in the chaparral-type to reduce wildfire hazards. Many range improvements designed to improve livestock grazing also improve habitat for wildlife. Water developments, range seedings, and prescribed range burns enhance the value of range for upland game birds. Range livestock production programs geared to minimize energy costs are resulting in considerable savings of irrigation water per unit of meat produced, an important consideration in water-short areas of the western United States.

Your range forage and structural improvements program is level at $3.9 million, but acres receiving improvements will be decreased by 990,000 acres.

Question: How many acres in total will receive improvements?

Answer: This budget will produce 241,000 acres of non-structural range improvement work such as range reseeding, prescribed burning, or control of undesirable brush plus 2,440,000 acres of suitable range will be affected by structural improvements such as construction of water developments and fences.

Question: What is the total identified need?

Answer: Within the National Forest System, 101.8 million acres are included in 11,000 grazing allotments. Of the area in allotments, 54.4 million acres are classified as suitable for livestock grazing. These acres currently supply forage for 9.9 million animal unit months of grazing. The revised Statement of Policy to the 1980 RPA Program directs the National Forest System to produce their current share of the predicted increase in livestock grazing or somewhere between 13.0 and 15.5 million animal unit months by the year 2030. To reach this goal, ranges in unsatisfactory condition will need to be restored to their potential natural productivity. Of the 16.3 million acres in poor and very poor ecological conditions, we estimate that approximately 50 percent are of a high enough productivity classification that they can economically be rehabilitated. In addition to restoring productivity to unsatisfactory condition ranges, management practices on all suitable range of high productivity will need to be intensified where it is cost efficient to do so.

Question: When will the Handbook, which provides for economic and cost-effective analyses of allotment management plans and range improvements, be completed? How are you making these decisions in the meantime?

Answer: The handbook, FSH 2209.11, Economic and Cost-Effective Analysis of Allotment Management Plans and Range Improvements, is presently in draft form and scheduled for completion by the end of fiscal year 1981. It will be issued in final form through the Forest Service directives process shortly thereafter.

Interim use of the draft handbook already is being made in a few National Forest System Regions. Prior to the handbook, the majority of Regions used versions of a range economic analysis handbook developed in their Region. The national handbook expands upon and incorporates into a common approach earlier concepts and Regional experiences.

Question: What is the explanation for the decrease in thousand animal use months for wild horses and burros from 40 in 1981 to 26 in 1982?

Answer: The Public Rangelands Improvement Act of 1978 directs the removal and disposal of excess wild free-roaming horses and burros which posed a threat to themselves and their habitat and to other rangeland values. The Forest Service's Wild Horse and Burro Program is closely related to that of the Bureau of Land Management. In many situations, wild horses that run on National Forests also run on the public lands administered by the Bureau of Land Management. On some locations, an overpopulation exists and action is necessary to remove excess animals to achieve appropriate management levels, and protect the range from deterioration associated with overpopulation. Over the last couple of years, the Forest Service's program to capture excess wild horses has resulted in a reduction from about 40 to 26 thousand animal-unit-months of use on National Forest lands. Captured excess animals are placed with private individuals under a maintenance and care agreement with provision for granting title for the animal to the individual upon application and following 1 year of care under humane conditions.

Question: How do you determine the number of acres to be treated for noxious weed control (12,000 in the Reagan budget, down from 20,000)?

Answer: Areas to be treated are determined by criteria such as: (1) sites infested by weeds specified by law as being especially undesirable and troublesome in terms of economic and resource impacts, (2) a State cooperator's priority for control, and (3) followup maintenance needed for complete control.

Question: If 20,000 (acres) was a minimum program, as you stated, what will be the impact of doing 8,000 (acres) less?

Answer: The impact of accomplishing 40 percent less noxious farm weed control must relate to crop production losses. Priority for control is always given undesirable infestation adjacent to private lands in crop production. Additional impact would be in: (1) decreased forage yield and quality; (2) loss of beef, veal and lamb from poisonous plants (many are classified as noxious farm weeds); and (3) reduced site productivity potential due to soil loss in certain instances.

CONSTRUCTION AND LAND ACQUISITION

$6.6 million is requested for recreation construction.

Question: Will the Reagan reduction of $1.0 million result in any closures or reduction in RVD's (recreation visitor days)? If so, provide these details for the record also.

Answer: The reduction of $1,000,000 will reduce or defer our ability to bring substandard water and sanitation facilities to desireable standards.

The impact will be more on our ability to collect fees rather than actual decline in RVD's. Many of these facilities are open for use, but substandard water and sanitation preclude fee collections.

$203.6 million is requested for forest road construction. An additional amount of $242.5 million is estimated for timber purchaser road construction, for a road construction total of $446.2 million. This is $29 million less than was included in the Carter budget.

Question: Your estimate of permanent full-time positions increases by 156 under the Reagan budget, despite the decline in program dollars from the Carter budget. Why is this?

Answer: President Reagan's budget also reduced or eliminated programs outside of the Forest Service budget, but planned for allocation to Forest Service. The two larger programs in this category are the Youth Conservation Corps and the Land and Water Conservation Fund. These programs had full-time positions assigned to them. Although the staff-year ceiling were also reduced when these programs were cut back, some positions were allowed to remain to pick up work previously performed by enrolles and employees and working in these programs. This allowed the Forest Service to re-distribute full-time positions to other programs even though the program may have experienced a reduction in funds by the revised budget.

Question: Section 10(b) of the Forest and Rangeland Renewable Resources Planning Act, as amended by the National Forest Management Act, provides that unless a road has been designated as permanent, it must be designed so as to allow it to be reseeded and returned to production of Forest crops within 10 years after a sale. What have you done to carry out this requirement?

Answer: Land Management Planning regulations and direction make planning of the permanent transportation system an intregal part of the Forest Plan. With this effort now under way designation of permanent roads will be handled in the Forest plan and functional resource development plans.

Direction has been issued concerning other than permanent roads and their restoration after use. Provisions are made in individual work plans on a project by project basis. Watershed management encompasses this restoration and rehabilitation of land after temporary use.

Question: Section 10(c) of the Act provided that roads be designed to standards appropriate for the intended uses, considering safety, costs, and impacts on lands and resources. What have you done to implement these standards? How have they worked? Have they been revised, or are they now under revision? If so, what changes are being considered?

Answer: The Resource planning process establishes the criteria to be met and road standards are then selected that meet those criteria. The analysis process encompasses the costs associated with safety, land, and resource impacts.

We are currently making a review of standards of construction to assure that the roads being built or rebuilt are meeting the criteria. Basically, we are looking at surfacing requirements and reconstruction requirements to assure that the work is needed by current resource activities. This is a continuing process in looking for improved ways of getting the job done.

Question: Is the current request for road construction adequate to meet your recreation needs? What is your backlog of recreation road construction?

Answer: The recreation road program is about $2.8 million. We have been programing about $12 million per year in this area, mainly in new or major reconstruction of access to special areas such as N.R.A.'s and water related recreation development.

This program is project specific as a part of individual recreation projects approved by the Congress.

We do not have a backlog of recreation road construction as such.

Question: Can you provide a detailed breakdown of your Forest Road Construction request for 1980, 1981, and 1982, showing the allocation between design, surveys, and engineering services for direct construction, versus timber purchaser built roads, road construction, bridge construction, and all the other elements in the program?

Answer: The following breakdown is our best estimate from the planning data on file.

	1980	1981	1982
		(thousand dollars)	
Direct FS Construction Program			
Preconstruction Engineering	30,900	35,400	40,100
Construction/Reconstruction	94,900	85,600	78,900
Bridges	17,900	14,900	14,300
Construction Engineering	19,200	28,800	29,400
Subtotal	(162,900)	(164,700)	(162,700)
Support of Timber Credit Program			
Preconstruction Engineering	42,300	52,200	58,500
Supplementation	17,600	15,900	18,300
Construction Engineering	35,400	35,400	42,800
Total	258,200	268,200	282,300
by: Appropriated	174,000	202,700	203,600
10 percent funds	84,200	65,500	78,700
Timber Purchaser Program			
by: Timber Credit	215,386	210,000	242,542
Purchaser Election	52,702	20,000	40,200

Question: What were the miles of road built, types of road built, and quantity of resources made available during the past 4 years.

Answer: The information requested is not available except in the field on a project-by-project basis. The table below reflects information once gathered for types of road funding for Alaska, Idaho, Oregon, and Washington. To acquire this information resulted in reviewing several hundred projects. To gather the requested road and resource availability information on a nationwide basis would encompass a tremendous number of staff hours since thousands of projects must be reviewed to extract necessary data.

Year	Alaska	Idaho	Oregon	Washington
1974	- - - - - - - -	- - Miles -	- - - - - -	- - - - - - -
Appropriated	2		2.4	
Purchaser Const.	30	132.2	814.0	191.2
1975				
Appropriated	2.5	72.8	3.1	6.6
Purchaser Const.	39		659.9	270.4
1976 1/				
Appropriated	0		23.9	
Purchaser Const.	51	242.8	1039.2	402.3
1977				
Appropriated	15.4	35.6	24.7	7
Purchaser Const.	61	196.4	843	268.3
1978				
Appropriated	9.7	19.0		
Purchase Const.	8	289.2	707	208
Purchaser Elect	0	13.8	0.3	3.6

1/ Includes transitional quarter.

Question: Provide for the record a breakdown of the $62.6 million unobligated balance at the end of F.Y. 1980, and an explanation of the $10.6 million unobligated balance lapsing.

Answer: Following is the breakdown of the $62.6 million unobligated balance.

Construction of Facilities:	
Research	$ 693,184
Recreation	5,638,061
F&AO	9,014,536
Road & Trail Construction	7,175,292
Timber Purch. Road Credit	24,418,625 1/
Pollution Abatement	2,270,435
Land Acquisition	282,607
Alpine Lakes	29,375
Trnsf. to Transp. (FHWA)	13,015,205
TOTAL	$ 62,537,320

The $10.6 million unobligated balance lapsing is due to the Timber Purchaser Road Credit appropriation being an annual appropriation prior to fiscal year 1980 and balances cannot be carried forward.

1/ $10,689,000 of this balance was approved for reprogramming late in September; however, the actual adjustment was not reflected on the books until October, 1980, or fiscal year 1981.

ADMINISTRATIVE PROVISIONS

Question: Why are you proposing to purchase so many aircraft in fiscal year 1982 (21 single engine, 5 twin engine, and 24 helicopters) compared to the total number you currently own (77, 15, and 47 respectively)?

Answer: This is not a request to purchase new aircraft, but a request for authorization to acquire Federal excess aircraft to replace WW II and other vintage military aircraft presently used by the State forestry agencies.

George Washington National Forest

Question: For the record, please provide the details and costs of the next stage of development at the Rock Cliff Lake and Trout Pond. Would any proposed development at Rock Cliff Lake and Trout Pond be consistent with the Environmental Study conducted by the University of West Virginia? Please explain?

Answer: Phase one of the development plan is complete. Construction items in the next phase will expand the capability of the Recreation area to accommodate 55 additional family units. This would require $443,468 FR&T and $994,293 recreation construction funds for a total of $1,387,761.

During the development of the master plan for Trout Pond the Forest prepared an environmental assessment of the proposal. Mitigating measures were incorporated in the initial design of the facilities. Since that time, the University of West Virginia has raised some concerns regarding further development of the site. Accordingly, the Forest is conducting further evaluation of the specific concerns raised in the West Virginia Study.

We believe, as we found in our earlier assessment, that through proper site design and facility location, user and development impacts can be satisfactorily mitigated.

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